



10

Teaching Students with Fetal Alcohol Spectrum Disorder

PROGRAMMING
FOR STUDENTS
WITH
SPECIAL NEEDS
SERIES

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Introduction to the Series

The following books are included in the *Programming for Students with Special Needs* series. The information in each book is interrelated and can be used to provide instruction to all students.

Book 1: Teaching for Student Differences (1995)

Book 1 highlights strategies for differentiating instruction within the regular classroom for students who may be experiencing learning or behavioural difficulties, or who may be gifted and talented. It includes ideas for varying instructional time, the learning environment, resources, materials, presentation, assignments and assessments to accommodate students with diverse needs. This book contains instructional strategies arranged by core subjects as well as by categories of differences, e.g., learning disabilities, behaviour disorders, and gifted and talented. The appendices contain a variety of useful forms for teacher planning.

Book 2: Essential and Supportive Skills for Students with Developmental Disabilities (1995)

Book 2 helps teachers provide programming to students with a range of cognitive disabilities. This resource includes:

- developmental checklists for communication skills, e.g., receptive, expressive, social, articulation and vocabulary
- checklists for gross and fine motor development, including colouring, graphics, manuscript printing and cutting
- charts and checklists which provide a continuum of life skills by domain
- checklists for mathematics, reading and writing to Grade 6
- an annotated list of teaching resources.

Book 3: Individualized Program Plans (1995)

Book 3 contains a process for IPP development and strategies for involving parents. This book provides information on writing long-term goals and short-term objectives along with case studies and samples of completed IPPs. It addresses transition planning, and features forms and checklists to assist in planning.

Book 4: Teaching Students who are Deaf or Hard of Hearing (1995)

Book 4 includes information on the nature of hearing loss and various communication systems. The book contains information on amplification, educational technologies, program planning and teaching strategies.

Book 5: Teaching Students with Visual Impairments (1996)

Book 5 offers basic information to help provide successful school experiences for students who are blind or visually impaired. The information in this book addresses:

- the nature of visual impairment
- educational implications
- specific needs
- instructional strategies
- the importance of orientation and mobility instruction
- the use of technology.

Book 6: Teaching Students with Learning Disabilities (1996)

Book 6 provides practical strategies for regular classroom and special education teachers. Section I discusses the conceptual model and applications of the domain model. Section II includes identification and program planning, addressing early identification, assessment, learning styles and long-range planning. Section III contains practical strategies within specific domains, including metacognitive, information processing, communication, academic and social/adaptive. Section IV addresses other learning difficulties including attention-deficit/hyperactivity disorder and fetal alcohol syndrome/possible prenatal alcohol-related effects. The appendices contain lists of annotated resources, test inventories, support network contacts and blackline masters.

Book 7: Teaching Students who are Gifted and Talented (2000)

Book 7 provides practical strategies for regular classroom and special education teachers. Section I addresses administration of programs for the gifted and talented at both the district and school levels. Section II discusses conceptions of giftedness, highlighting nine theoretical models. Section III discusses identification of gifted and talented students, including information on gathering and recording data using several different measures, developing individualized program plans, communicating with and involving parents. Section IV discusses giftedness in the visual and performing arts. Section V contains strategies for designing and implementing programs, including curriculum modification. Section VI discusses post modernism and gifted education. The appendices contain lists of annotated resources, test inventories, support network contacts and blackline masters.

Book 8: Teaching Students with Emotional Disorders and/or Mental Illnesses (2000)

Book 8 takes a comprehensive look at six emotional disorders or mental illnesses: eating disorders, anxiety disorders, depression, schizophrenia, oppositional defiant disorder and conduct disorder. It describes characteristics, symptoms and risk factors that may trigger the onset of the disorder or illness, and presents strategies that teachers, parents and other caregivers can use to assist students.

Book 9: Teaching Students with Autism Spectrum Disorders (2003)

Book 9 addresses a range of issues related to providing education programs for children with autism spectrum disorders, including suggestions for modifying the environment, instructional strategies, strategies to support inclusion, suggestions for developing collaborative relationships with parents and processes for managing behaviour, along with basic information on autism spectrum disorders. This resource is intended for teachers, paraprofessionals and stakeholders who provide education programs to students with autism spectrum disorders.



For a free PDF version of this resource, go to:
www.learning.gov.ab.ca/k_12/specialneeds/autism.asp

Related Resource

Teaching for the Prevention of Fetal Alcohol Spectrum Disorder (FASD): A Resource for Teachers of Health and Life Skills, and Career and Life Management (2001)

This resource provides learning activities and background information for learner outcomes related to alcohol use and FASD in the Kindergarten to Grade 9 Health and Life Skills, and Senior High School Career and Life Management programs of study. It also includes curriculum-aligned learning activities organized around three themes: understanding relationships, dealing with emotions and feelings, and managing risks and making personal choices. Assessment activities, student information masters and a booklet for community resource people are also included.



For a free PDF version of this resource, go to:
http://www.learning.gov.ab.ca/k_12/curriculum/bySubject/healthpls/fas.pdf

Building Strengths, Creating Hope

Table of Contents

Introduction	1
Chapter 1: What is FASD?	3
FAS and FASD definitions.....	3
Historical context	4
How prevalent and significant is FAS?.....	5
FASD is a diagnosis of both mother and child.....	5
How an FAS diagnosis is made in a medical clinic	6
Common behavioural and learning patterns.....	10
Chapter 2: Key concepts for planning effective education programs	15
Chapter 3: Organizing for instruction	27
Structure the physical learning environment.....	27
Develop effective routines.....	31
Teach time concepts	32
Build skills for participating in whole class instruction	33
Teach social and adaptive skills	36
Plan for nonclassroom settings	43
Help students generalize new skills and concepts.....	46
Chapter 4: Creating a positive classroom climate	51
Consider the neurological basis of behaviours	51
Manage the environment to avoid behaviour problems	55
Use language and nonverbal communication students understand	59
Focus on building positive relationships	61
Modify students' challenging, negative behaviours.....	69
Chapter 5: Responding to students' needs	73
Sensory processing	73
Motor skills.....	78
Behavioural regulation	81
Adaptive behaviours and social skills	83
Attention.....	86
Memory	89
Language and communication.....	93
Academic skills	96

Table of Contents (continued)

Appendix A

A1: Sample Questions to Discuss During Meetings with Parents	111
A2: Enhancing Parent Involvement in the Individualized Program Plan (IPP) Process	112
A3: Parent Participation in the Individualized Program Plan (IPP) Process	113
A4: Working with Parents	114
A5: Home-School Communication Book	115
A6: Environmental Scan of the Classroom	116
A7: Getting Along With Others Inventory	118
A8: Explaining FASD to Your Child	120
A9: Learning Challenges Inventory	122
A10: Self-advocacy Checklist	124

Appendix B

B1: Classroom Routines	125
B2: Social Script: Getting a Person's Attention	129
B3: Math Jobs	130
B4: Raise Your Hand	131
B5: Class Jobs	132
B6: Students Working	133
B7: Self-talk	135
B8: Locker	136

Appendix C

C1: Activity 1—Jigsaw: Overview of FASD	137
C2: Activity 2—Quick Tour: Overview of the Contents of the Resource	141
C3: Activity 3—Treasure Hunt: Exploring Strategies and Ideas	144

Bibliography

149

Index

157

Feedback

165

Introduction

Teachers have a special opportunity every day to bring a new vision of the world to their students. Teachers can help students learn new skills and information, and give them the chance to see their own possibilities and strengths. Some students are easier to teach than others. They may have the readiness skills, confidence, support from home and personal motivation to learn successfully.

Other students need learning activities that are carefully structured and reinforced. Often, such students have a history of school failure, and as a result have developed a negative self-concept. They may not have the benefits of a consistent, nurturing home life. A few students have birth defects that affect their learning. These are the students who require educators' best skills.

Within this group of challenging students are students with fetal alcohol spectrum disorder (FASD). Each student with FASD has a unique pattern of strengths and weaknesses. Though they have, by definition, neurological patterns of deficit based on their prenatal exposure to alcohol, the specific ways these impairments are demonstrated on a day-to-day basis vary.

Teaching Students with Fetal Alcohol Spectrum Disorder: Building Strengths, Creating Hope is a revision and expansion of the 1997 Alberta Learning teacher resource, *Teaching Students with Fetal Alcohol Syndrome and Possible Prenatal Alcohol-related Effects*. Much has been learned since the 1997 publication. This new guide offers teachers information and specific ideas to better meet the learning needs of students with FASD.

Educators now have more information and greater capacity to help students with FASD. Across North America, there are many more physicians and other professionals, such as psychologists, speech pathologists, occupational and physical therapists, and social workers, who are trained in effective approaches in assessment, diagnosis and program planning. Many teachers are attending workshops and have greater support to meet the educational needs of these children. Across the nation, members of the judicial system and police are more aware of the issues of the FASD population, and are developing training programs and sharing information. Many parents have also had opportunities to receive education and assistance through support groups and conferences.

The collected knowledge and understanding of these diverse groups have combined to produce overlapping circles of understanding and support which can be woven together to create a net of safety and hope for individuals affected by prenatal exposure to alcohol. Using our resources and collaborative efforts, we can build their strengths and create hope for their futures.

This document is divided into five chapters and a set of appendices.

Chapter 1: What is FASD? This chapter provides background and terminology to help educators understand the current medical diagnostic definition of FAS and the term FASD. It also explains the diagnostic process, primary and secondary disabilities, and the strengths and protective factors often seen in students with FASD.

Chapter 2: Key concepts for planning effective education programs Chapter 2 provides background on the complexity of this disability. It outlines variations in patterns of prenatal alcohol exposure, contributing factors to learning and behaviour, and the range of strengths and needs evident in this population of students. This chapter also presents basic ideas on how professionals can work together from the point of medical diagnosis to the coordination of services in schools and the larger community.

Chapter 3: Organizing for instruction This chapter provides overarching strategies on structuring the learning environment, developing effective routines, building skills for whole-class instruction, teaching social and adaptive skills, and helping students generalize new skills and concepts. These strategies benefit many students, not only those with FASD. This chapter also includes information on developing and implementing individualized program plans (IPPs).

Chapter 4: Creating a positive classroom climate Chapter 4 offers suggestions for building a positive classroom climate and maintaining a supportive learning environment. It includes specific strategies for understanding the intent of behaviour, structuring the environment to accommodate active behaviours, ensuring smooth transitions, establishing clear rules and expectations, and using positive reinforcements.

Chapter 5: Responding to students' needs This chapter includes strategies related to specific areas of developmental functioning. The strategies are organized by domain, including attention, memory, language and communication, and academic skills. These domains are defined and described, and are followed by suggestions for remediating and compensating for these specific needs.

Appendix A includes reproducible blackline masters to use with students, parents and other educators.

Appendix B includes sample visuals teachers can customize to use with students.

Appendix C includes three inservice activities to familiarize school staff with this resource.

Throughout this document, the words *families* and *parents* refer to all primary caregivers, whether they be biological parents, foster or adoptive parents, group home workers, guardians or extended family members.

Teaching Students with Fetal Alcohol Spectrum Disorder is Book 10 in the *Programming for Students with Special Needs* series. In Chapters 3, 4 and 5, other books in the series and other Alberta Learning resources are mentioned in sidebars. Various other resources are also mentioned throughout this document. These titles have been provided as sources of further information on various topics and do not imply Alberta Learning's approval for the use of these resources. Teachers and other district staff should preview resources and assess their appropriateness before using them with students or recommending them to others.

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Chapter 1: What is FASD?

Fetal Alcohol Spectrum Disorder (FASD) is a term currently used throughout North America to refer to a variety of physical changes, and neurological and/or psychometric patterns of brain damage associated with fetal exposure to alcohol during pregnancy. This brain damage can result in a range of structural, physiological, learning and behaviour disabilities in individuals. FASD is not a diagnostic term, but an effective way to indicate the spectrum of physical, cognitive and behavioural characteristics educators can see in such individuals. The medical diagnostic term Fetal Alcohol Syndrome (FAS) is used to describe a specific identifiable group of children who all share certain characteristics: a specific set of facial features, central nervous system (CNS) dysfunction, and often growth deficiency and a scattering of other birth defects. In 1973, Dr. David W. Smith, a researcher in dysmorphology, and his associate Dr. Kenneth L. Jones found these characteristics in a group of 11 children born to mothers who used substantial amounts of alcohol throughout their pregnancies. Smith first called this pattern Fetal Alcohol Syndrome.¹ This subgroup of individuals with alcohol exposure is important because the features defined in the face predict brain damage and prenatal alcohol exposure. Only a small portion of exposed individuals display the full pattern of FAS. They are among the larger group of individuals with alcohol exposure who will be referred to under the term FASD in this document. The majority of children who have learning, behavioural and functional difficulties as a result of prenatal exposure to alcohol have an “invisible disability” and do not have the characteristic facial features of FAS.

FAS and FASD definitions

FAS is a medical diagnosis involving four key features: alcohol exposure, growth deficiency, facial features and brain damage.

FASD is an educational term that includes the range of individuals from those who have the full syndrome to those who have only a few issues with learning and behaviour, and no facial or growth issues. However it is presumed that all these individuals were exposed in utero to alcohol. This toxic exposure leads to difficulties and deficits that are evident in infancy, childhood and beyond.

Since it became evident that many children with prenatal alcohol exposure showed only some of the features in the FAS medical definition, other terms have been suggested to describe partial expression of the four key features. These terms may appear in medical reports or may be used by parents or professionals at team meetings. A group of leaders in the field first called the range of features Fetal Alcohol Effects (FAE).² Though FAE was never meant to be used as a diagnostic term, it has been adopted by many in the field to describe individuals with alcohol exposure, but without all the FAS features.

Since the 1970s, many other terms have appeared in the literature about this population. Terms frequently used in Alberta are Partial Fetal Alcohol Syndrome, Alcohol-related Neurodevelopmental Disorder and Alcohol-related Birth Defects.³ Typically, these terms are defined as follows.

1. Jones et al. 1973.
2. Aase et al. 1995.
3. Stratton, Howe and Battaglia 1996.

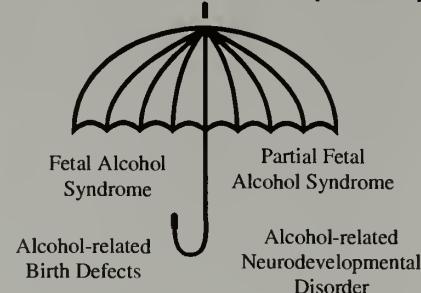
Partial Fetal Alcohol Syndrome (pFAS) indicates confirmed maternal alcohol exposure. A child with pFAS exhibits some, but not all, of the physical signs of FAS, and also has learning and behavioural difficulties which imply central nervous system damage.

Alcohol-related Neurodevelopmental Disorder (ARND): A child with ARND exhibits central nervous system damage resulting from a confirmed history of prenatal alcohol exposure. This may be demonstrated as learning difficulties, poor impulse control, poor social skills, and problems with memory, attention and judgement.

Alcohol-related Birth Defects (ARBD): A child with ARBD displays specific physical anomalies resulting from confirmed prenatal alcohol exposure. These may include heart, skeletal, vision, hearing, and fine/gross motor problems.⁴

FASD is the general term that has come into use in the past few years. It is like an umbrella—a label that includes all terms, and provides a way to describe the continuum of deficits and challenges. Neurological damage can be seen along the whole spectrum of FASD. In fact, individuals without the FAS medical diagnosis, but with FASD, pFAS or ARND may be at greater risk because they do not show the physical characteristics of FAS and are less likely to be diagnosed or receive appropriate supports. These individuals may have significant brain differences, yet the only identified symptoms of the disability are behavioural difficulties. In this document, the term FASD will be used unless the specific medical group that fits the diagnosis of FAS is being discussed.

Fetal Alcohol Spectrum Disorder (FASD)



Historical context

The negative consequences of drinking alcohol during pregnancy were mentioned as far back as Aristotle's writings and the Bible. In 1899, British physician H. W. Sullivan linked alcohol use during pregnancy to poor birth outcomes in a study of women in the British prison system and their children.⁵ In 1968, Lemoine, a French physician, reported case studies of children of alcoholic women who had a specific, recognizable pattern of birth defects.⁶ Then, Dr. David W. Smith and Dr. Kenneth L. Jones conducted a study of infants and children with a characteristic set of facial features and neurological changes, and found that their mothers were alcoholics at the time of pregnancy.⁷ Dr. Smith named the pattern Fetal Alcohol Syndrome. By calling the syndrome after its presumed cause (the name implies that alcohol results in problems to the fetus) Dr. Smith understood how the name could provide a tool for prevention of this newly described birth defect pattern. He and his fellow researchers understood that if mothers did not drink, their children were unlikely to show this set of birth defects. Here was a devastating condition that had the potential to be prevented if widely understood and diagnosed, and if the predisposing issues were treated.

4. Stratton, Howe and Battaglia 1996.

5. Sullivan 1899.

6. Lemoine et al. 1968.

7. Jones et al. 1973.

Since 1973, thousands of studies, publications and conferences have helped develop understanding, recognition, prevention and treatment of FASD. Specific groups have made their own contributions. Researchers have studied the harmful effects of alcohol on developing fetuses in a variety of mammals. In particular, these studies have helped explain the ways in which the toxic properties of alcohol influence developing cells and structures in the embryo and fetus. Epidemiologists in many countries have documented the widespread prevalence of FASD. Clinical researchers around the world have conducted studies of learning and behaviour characteristics related to brain damage in FASD, and the lifelong emotional and social difficulties of affected individuals. Educators and parents have developed and shared ways to help their students and children. Public health and government policy officials have developed awareness and prevention programs, and conducted surveys to document the prevalence of the condition. In less than a third of a century, much has been done, but more work remains to prevent this disability, and to serve and support affected individuals and their families.

How prevalent and significant is FAS?

There have been a number of studies in various populations to determine the prevalence of FAS. Abel found one per 1000 infants met the diagnostic criteria for FAS during the newborn period in the United States.⁸ In populations of children and young adults, who are easier to diagnose than newborns, the rates of FAS are usually higher, often three per 1000.⁹ In high-risk groups in Canada and the U.S.A., the rate of FAS may be as high as one per 100.¹⁰ Children who have prenatal exposure to alcohol, but who do not show all the features of FAS have, at times, been described as having Fetal Alcohol Effects (FAE). The rate of FAE is thought to be at least three to four times more prevalent than FAS in the general population.¹¹

Wide-scale studies have also been used to predict the significance of FASD. Studies in the U.S.A. and Sweden that include cognitive data, link lower IQ to in utero alcohol exposure. Approximately half the individuals identified with FAS have IQs below 70. Research in Sweden and the U.S.A. indicates that alcohol exposure is the most common single cause of mental retardation, more common than Down syndrome or any other birth defect syndrome.¹² In addition, when individuals with FAS diagnosis have been studied over their life spans, their significant learning, behavioural, psychiatric, social and legal problems can have significant impact on their families and communities as well as on the individuals themselves.¹³

FASD is a diagnosis of both mother and child

The term FAS is really a prevention term because it reveals a mother's use of alcohol during pregnancy. By diagnosing the child, it may be possible to prevent another pregnancy with a similar outcome if the mother understands the relationship between her child's condition and drinking during pregnancy. FAS is a diagnosis for two individuals: the mother and child. Ideally, the mother can receive appropriate and supportive treatment so her next pregnancy can lead to a healthy baby. However frequently, by the time children are diagnosed, they are living with adoptive or foster families rather than with their biological mothers. To learn more about women who had given birth to children diagnosed with FAS, a Seattle

8. Abel 1998.
9. Stratton, Howe and Battaglia 1996.
10. Robinson et al. 1987, May et al. 1983.
11. Streissguth 1997.
12. Aronson and Olegard 1987, Abel and Sokel 1986.
13. Lemoine and Lemoine 1992, Streissguth 1997, Steinhausen et al. 1993.

research study interviewed their birth mothers to determine maternal characteristics.¹⁴ One startling finding was that when researchers tried to locate these mothers, 25 percent were dead or unreachable. Alcohol use and other factors appeared to be having devastating effects on this group of women. The women who were located and interviewed were found to have long histories of abuse, mental illness and nonsupportive living situations related to drug and alcohol use. Half the women in the study had prenatal alcohol exposure themselves. This profile of maternal disabilities and needs is being used to guide intervention and treatment programs. Programs that use a mentor/advocacy model have been effective in treating such women and helping them create healthier lives for themselves and their children in both Canada and the U.S.A.¹⁵

How an FAS diagnosis is made in a medical clinic

In Alberta and many other areas in North America, a standard way to diagnose FAS is being adopted. The following section will help educators develop a basic understanding of the diagnostic process and terminology used in medical reports.

The guidelines currently used in Alberta are outlined in the *Diagnostic Guide for FAS and Related Conditions* (1999) developed by Astley and Clarren. Specific research-based criteria define four levels of severity in each of the four features of FAS. The magnitude of expression of each feature is ranked independently on a four-point Likert scale, with a score of 1 reflecting complete absence of the FAS feature and a score of 4 reflecting a strong, classic presence of the feature. Two and 3 are less severe or intermediary descriptions of the specific feature. This approach is called the 4-Digit Diagnostic Code.¹⁶ A description of the features and how they are rated follows.

Alcohol exposure

Using the 4-Digit Diagnostic Code, available information about a mother's pattern of alcohol use during pregnancy is rated from a 4 (high risk), to 1 (no risk). The intermediary steps are rated: 3 (some use) or 2 (unknown use). In diagnostic assessments, physicians and other clinicians attempt to obtain alcohol-use histories from mothers or people who saw the mothers drink during their pregnancies. If alcohol exposure histories cannot be obtained because the mothers or observers of their use are not available, children can still receive a diagnosis of FAS if all other classic features are present. For those children who have no physical signs of FAS, but do have learning and behavioural profiles that suggest FASD, a diagnosis cannot be made with certainty without a confirmed history of maternal alcohol use.

An important consequence of children's diagnoses is that it may be possible to treat the mothers. If they are still using alcohol, intervention could prevent the births of other children with FASD. Appropriate support could be initiated to help them quit drinking prior to future pregnancies.

Growth deficiency

The four-digit system for determining growth deficiency includes obtaining weight and/or height measurements. If these measurements are more than two standard deviations below the mean at some point during development, individuals are given a rating of 4. Individuals who have normal size obtain a rating of 1. Those who are smaller than expected, but whose measurements are larger than the third percentile level are rated with intermediate codes of 3 or 2.

14. Astley et al. 2000.

15. Grant et al. 1997.

16. Astley and Clarren 1999.

Growth is a difficult aspect of the pattern to rate. Research studies indicate that if mothers stop using alcohol by the second half of pregnancy, babies may be normal size at birth and throughout their development, although somewhat smaller than genetically predicted.¹⁷ Children's genetic potential, based on the heights of biological parents, should also be considered in evaluating size during the diagnostic process, when possible. Typically, large parents tend to have large children. These children may have significant growth deficiency after alcohol exposure, but because of their genetic predisposition, they may not measure at or below the third percentile on a normal growth chart. Children born to small parents may measure at the first percentile because that is genetically where their growth should be, based on their inherited size potential, even though they had no alcohol exposure. Growth deficiency can be an indication of other health problems as well. Small stature is common to a myriad of medical conditions in addition to those that occur in individuals with alcohol exposure.

Facial features

There are three key features evaluated in the diagnosis: small eye slit openings, flattened vertical columns in the upper lip (philtrum) and a thin upper lip. There is evidence that the development of this area of the face happens in day 19 to 21 of gestation. Prenatal exposure to alcohol during this narrow time frame will affect these features.

One critical facial feature to evaluate is the eye slit openings. The medical term for the eye slit is palpebral fissure. Palpebral fissures that measure in the lowest two percent of population norms or more than two standard deviations below the mean are typically found in individuals with significant alcohol exposure.

Two other critical facial features associated with significant alcohol exposure are found in the philtrum and the shape of the upper lip. To meet the criteria for FAS in the lip region, the philtrum (groove between nose and upper lip) must appear flattened, the curve of the upper lip is straightened in the centre (vermillion border) and there is a general decrease in the red portion of the upper lip (vermillion). These features—the upper lip and philtrum—are rated using a five-point photographic scale. To meet the definition of FAS (a code of 4), the facial features are rated as significantly extreme on the criteria. Individuals who measure in the normal range on these features receive a rating of 1.

Many published descriptions of FAS contain photos or schematic pictures that depict a wide number of characteristic facial features including low ears, a flat mid-face and a small jaw, as well as small eye slits and lip changes. However, based on computer-analysis studies, these other facial features may be present, but are not definitive of the FAS face.¹⁸

Facial features are not always easy to determine at all points across the life span. The small eye slit (that reflects the development of a smaller eye region and the ocular brain tissue) tends to be present from birth into adulthood. The features seen in the upper lip and area under the nose are more variable in their presence. They may not appear until the child is a toddler and be less evident after puberty, when the jaw and face show significant growth and change. Though a clear presentation of classic features of FAS can be diagnostic, evaluation of facial features can be difficult and should be conducted only by trained clinicians.

17. Day, Jasperse and Richardson 1989.

18. Astley and Clarren 2001.

Brain damage

Central nervous system (CNS) dysfunction or brain damage underlies the many learning and behaviour difficulties of individuals with FASD. Alcohol is a toxic agent that can change the number and structure of brain cells, cell organization, the size of the brain and its various structures, neurochemistry and eventually cerebral functioning. This damage can occur at any time within the pregnancy, but unfortunately often occurs in the first trimester before a woman knows she is pregnant.

Using the four-digit code, three sources of information can be used to make a diagnosis of brain damage. The first is to find structural changes in the brain. Such structural abnormalities can be seen on a brain image, such as a CAT scan or a magnetic resonance image (MRI). If the image shows a significantly small brain (microcephaly), or lesions or abnormalities in particular regions of the brain, a rating of 4 is given. Though a few severely affected individuals with FAS have abnormalities on brain images, most do not.

The second way to identify brain damage is through assessing neurological dysfunction. Neurological dysfunction is indicated by conditions such as seizures and tremours, or other soft neurological signs such as extreme muscle weakness or rigidity, and coordination and/or balance deficits. Some, but not all individuals who have FAS, show such neurological dysfunctions. Finding structural or neurological brain damage is the role of physicians with the assistance of other professionals, such as occupational and physical therapists.

Multidisciplinary teams of professionals can use psychometrical assessments to identify levels of brain functioning. Professionals test patient functioning from the vantage point of their particular disciplines. Team members bring the information together and use a collaborative process to summarize the data to aid in making diagnoses. Members of such teams include pediatricians, psychiatrists, nurses, psychologists, speech pathologists, occupational and physical therapists, neuropsychologists and social workers.

Using the four-digit approach, criteria indicating abnormal functioning are patterns of test results in several domains that are two standard deviations below average or in the lowest two percentile of the normed population. Such results indicate significant deficits. The domains typically evaluated include cognition, memory, adaptation, academic achievement, attention, speech and language abilities, communication, and fine and gross motor skills. Individuals who have brain damage as part of the diagnoses of FAS typically have at least three to four areas with test scores that meet the criteria for severe, significant deficits.

Other information assessed in the diagnostic process

Medical factors

Other medical information is also assessed as part of the diagnostic process. Physicians look for birth defects because they occur at a higher rate in this population. These defects most commonly occur in the oral palate, kidneys, spine, heart and sensory systems. Higher rates of physical malformations occur because alcohol can have a harmful effect on all structures as they are developing in utero. Physicians also look for other genetic conditions that are similar to FAS physically and/or behaviourally, e.g., William's syndrome and Fragile X syndrome.

Social and other factors

Diagnostic team members look at many other prenatal factors, including pregnancy histories, genetic factors, and social issues of parents and other biological family members. Postnatal factors are also reviewed, such as placement histories and family life, including both negative and positive factors. These prenatal and postnatal factors help provide an understanding of patients and their experiences, and can lead to recommendations for intervention.

Teacher's role

Assessing behaviour, learning and social functioning is key to understanding individuals. Such information, obtained from teachers, parents and others who know the individuals, is essential to identifying and understanding issues for them and their communities. Teachers can participate through interviews, and sharing school records and selected samples of schoolwork prior to clinic appointments. Parents can participate by completing initial referrals, interviews and structured questionnaires, often with the help and support of family advocates and outreach workers.

Outcome of the diagnostic process

The diagnostic process can lead to a range of diagnoses. Reports given to parents usually explain the findings and provide general recommendations for intervention. These reports may be shared with educators, with parents' permission. Individuals are given a diagnosis of Fetal Alcohol Syndrome if they have many 4 ratings that indicate the classic features of the original medical definition of FAS. Reports may also include terms such as "static encephalopathy," which indicates high ratings on CNS dysfunction; "neurobehavioural disorder," which indicates ratings that are intermediary on brain damage or learning and behaviour; or "sentinel birth defects," which indicates FAS physical findings of facial features and growth.

The value of a diagnosis

Individuals who have gone through the diagnostic process often find it a valuable experience. Diagnostic information can be used in individualized program planning (IPP) in schools and community treatment programs. Understanding and sharing results can lead to empathy for affected individuals.¹⁹ Having a reason for learning challenges and behaviour problems can be a protective factor according to Streissguth and Kanter.²⁰ When negative behaviours and learning disabilities are misinterpreted, children may be punished because they are perceived as oppositional. They may develop severe emotional problems that arise from frustration, inappropriate management and lack of support. Understanding the link between behaviour and learning problems, and the neurological impairments of FASD is one outcome of an effective diagnosis.

19. Gelo 1996.

20. Streissguth and Kanter 1997.

Common behavioural and learning patterns

Although each individual with prenatal alcohol damage is unique, there are certain patterns evident in behaviour and learning across the population of people with FASD at specific times in development. These dysfunctions are the outcome of brain damage that has caused changes in structure, chemistry and functioning of the central nervous system. These basic learning and behavioural difficulties are the primary disabilities of prenatal alcohol exposure. These difficulties can affect all aspects of functioning, from the most basic to the most complex. Many individuals with FASD have a pattern of difficulties across the life span as they struggle to understand and meet social and cultural expectations.²¹ There are some individuals whose difficulties in functioning may not be evident at a young age but become more evident over time as social demands increase.

Sensory and motor deficits

Infants with FASD often show poor adaptation to sensory stimuli, such as light, sound and touch. Continuation of the newborn startle response and demonstrations of exaggerated reflexes for prolonged, atypical periods are indications of brain immaturity. Typical motor system difficulties include problems with increased or decreased muscle tone, and swallowing and sucking. Sleep disturbances are common. Babies and children can have difficulty falling asleep and maintaining sleep throughout the night. Rocking and other repetitive motions, which may reflect brain damage, can begin in the first year of life and persist for many years.

Motor development difficulties, such as poor balance and coordination, tremours and clumsiness, can be seen across the life span. Babies or young children may have visual and fine motor development difficulties resulting in poor eye-hand coordination, and delays and deficits in sensory perceptual integration. Even in adulthood, these visual-spatial motor skill deficits can be seen, especially when individuals are asked to do complicated drawing and writing tasks.

FASD in preschool years

Preschool children with FASD may be slow to acquire and understand language. They often show delays in walking, running and riding a tricycle, and may have problems with fine motor skills, such as writing, drawing, cutting and manipulating small objects. In preschool, they may be slow to learn their colours, to rhyme or hold a pencil. They may have delays in adaptive skills, such as dressing, brushing their teeth or bathing. Many have difficulty regulating emotions and behaviour, and have extreme, lengthy tantrums. These children may be overly active, impulsive and inattentive. They often have trouble focusing on any activity for more than a few moments. Some may be inappropriately affectionate and open with adults because they are unable to recognize social boundaries or learn what behaviours are appropriate with familiar versus unfamiliar people.

FASD in school years

Children and adolescents with FASD often receive special education services because they have difficulty learning and behaving appropriately. These difficulties reflect basic weaknesses in language, memory and other functions essential to age-appropriate academic performance.

21. LaDue 1993, Olson 2002.

Academic learning difficulties

School-age children with FASD show a range of learning difficulties. In primary grades, they may have difficulty learning basic skills, such as recognizing letters and numbers, reading words, learning math facts, spelling, and writing sentences. By junior high and high school, they may have significant and persistent difficulty with complex learning tasks, such as reading comprehension, math reasoning and problem solving, report writing and test taking. Children with FASD often plateau in their academic learning, particularly in math. At the high school level and beyond, arithmetic skills may show limited development beyond basic intermediate grade functioning.

Memory

Memory difficulties vary from weaknesses in short-term rote and working memory to inconsistencies in long-term recall. A typical short-term memory problem often noted is the inability to recall a series of directions. A frequently described long-term retrieval memory problem occurs when children appear to know a fact or procedure one day and forget it the next. Another memory difficulty is source memory deficit. At times, individuals with FASD may confuse what they were specifically asked to recall with random information they heard or thought. Then, when asked to retrieve information, they add the extra information and are unaware it came from another source. This may look like lying or inattention, but actually is related to inefficient or dysfunctional storage and retrieval of information.

Language

Language development weaknesses are common in individuals with FASD. Early articulation and expressive language delays may occur, but are less evident as children reach school age and receive intervention. Individuals with FASD can be chatty or verbally fluent. However, the content and quality of their expressive language is often less complex, and more superficial, nonspecific and literal than other children their age. In language evaluations, children with FAS have comprehension scores that are generally lower than their expressive performance. This discrepancy between receptive and expressive language can be confusing. They tend to express themselves in ways that lead others to assume that they understand what is going on when actually they do not.²² Their ability to discern what others are saying is often poor. These individuals may have difficulty both interpreting figurative language and producing complex sentence structures in speech and written language. Special educator Susan Doctor has appropriately described this pattern as “they talk better than they understand.”²³ This expressive receptive language discrepancy can lead to many social difficulties.

Individuals with FASD often have difficulty understanding and using social communication. They lack the language needed for social awareness and complex expression of feelings. This often leads to difficulties in social and learning situations, such as understanding directions, social cues and fast-paced conversations; and interpreting satire, metaphor, parodies and other aspects of complex social interaction.

22. Coggins et al. 1998.

23. Doctor 1994.

Cognitive functioning

Individuals with FASD have various cognitive levels of functioning. Approximately half the children with FASD score in the below-average range on intelligence measures, while the rest function in the low-average to average range, and occasionally in the high-average range and above. Typically, IQ scores are lower than expected based on inherited genetic potential.²⁴ Individuals with FASD typically have lower intellectual functioning than family members who have not had prenatal alcohol exposure. When individuals with FASD are re-tested on standardized IQ tests, they often have lower scores at older ages. Children who obtain low-average range scores in preschool may score in the below-average range by adulthood.

Cognitive problems include patterns of inefficiencies and deficits in functioning, such as slow mental processing, and poor use of thinking and planning strategies. Individuals with FASD may have difficulty developing complex, abstract thinking and reasoning. In research studies, they have been found to have deficits in executive functioning.²⁵ This includes difficulty linking two or more ideas together, understanding complex concepts, generalizing and understanding cause-and-effect or the consequences of their actions, and having poor judgement. Individuals with FASD are often gullible and can be literal and concrete in their thinking. They may have additional difficulties with planning and organization on physical and conceptual levels. They may have problems keeping materials organized and managing time schedules. Often, older children with FASD cannot meet age-level expectations to effectively use complex cognitive strategies to accomplish multi-step tasks.

Behavioural regulation

Many individuals with FASD have difficulty with behaviour regulation, which often includes mood swings. Individuals may quickly go from excited and happy to morose or angry. Many have neurological systems that become easily overwhelmed by stimulation. They may show irritability, volatile anger, shut downs or other withdrawal behaviours. Other emotional difficulties include obsessive repetitions of certain actions, or perseveration of particular actions or ideas.

Maintaining appropriate attention and focus is often difficult for individuals with FASD. They may be impulsive, distractible, have difficulty shifting attention from one task to the next, or focus intensely and inappropriately on limited topics or objects. Many are diagnosed as having ADD/ADHD at some point in their lives.²⁶ Typical stimulant medication used to treat ADHD can have variable results with these individuals.

Adaptive skills or practical abilities

Adaptive skills and social emotional functioning are areas in which individuals with FASD often show their greatest declines, relative to their chronological age peers, as they grow older. School-age children's adaptive and social skills are often delayed and may be half their chronological age level.²⁷

24. Mattson and Riley 1998.

25. Olson et al. 1998.

26. Nanson and Hiscock 1990.

27. Clarren et al. 1995.

Many young adolescents attend large secondary schools and experience complex social settings of their communities, with fast-paced social interactions and demands for independent organization of daily activities. With such environmental and societal demands, the weaknesses of individuals with FASD related to inefficiencies of brain functioning, become increasingly more apparent. Individuals with FASD may have difficulty interacting with others and performing daily living skills, such as household and personal hygiene tasks, and communicating in ways that are socially appropriate. They often have better interactions with younger children who are at their developmental level. They function more effectively in small, highly structured environments. Difficulties tend to increase when the setting is less structured, such as playgrounds or malls.

Their adaptive and social difficulties are often related to weaknesses in language. They may not understand the social intent of conversation or be able to understand and recall directions. They may have trouble separating fact from fantasy, or understanding others' humour. Cognitive issues, such as reasoning problems, can lead to social difficulties because of errors in judgement or difficulty with age-appropriate tasks, such as managing money and time. They may tell lies for approval because they want to make friends or please adults.

Conceptual and memory problems can result in difficulty understanding the concept of individual ownership. Individuals with FASD may steal, without understanding the meaning of the act or its implications. Usually this is an impulsive act—an individual sees something attractive, wants it and picks it up. Behavioural regulation problems often continue into adulthood, and impulsive behaviour and anger may result in volatile temper tantrums or aggression. Mood swings may also result in risky or dangerous situations.

Secondary disabilities

With understanding, appropriate expectations and supportive environments, individuals with FASD can perform adequately and live fulfilled lives. However, individuals who grow up without this kind of structured support, may encounter frequent situations in which they are frustrated and punished for their inability to meet the expectations of classrooms, social groups, jobs or communities. Individuals with FASD have the invisible disability of CNS dysfunction and are often misunderstood. Their deficits can be misconstrued as laziness, noncompliance or willful misconduct. Streissguth and Kanter²⁸ note that adolescents and adults with FASD often experience secondary disabilities, or emotional and societal problems related to their difficulty managing typical expectations. Lemoine, Steinhausen and their colleagues have documented the array of difficulties individuals with FASD may experience as adults.²⁹ They identify social isolation, depression, anxiety, suicidal thoughts and attempts, delinquency, unplanned pregnancies, homelessness and victimization as difficulties that can occur when there is a discrepancy between expectations and a person's ability to perform.

28. Streissguth and Kanter 1997.

29. Lemoine and Lemoine 1992, Steinhausen 1993.

Talents and strengths

Even though individuals with FASD have many difficulties, they have talents and strengths as well. Malbin, and Kleinfeld and Wescott identify ways that teachers and parents can maximize these capabilities if they look for hidden strengths.³⁰ Individuals with FASD may show positive personality characteristics, including persistence and commitment, in low-stress situations. Malbin notes that these individuals often enjoy repetitive work and succeed in structured situations. They often have a strong sense of fairness and a rigid belief system. These individuals are often gregarious, fun loving, caring and affectionate. They can be sensitive, loyal, kind and trusting in relationships. If they have been raised in a positive atmosphere, they often show a strong sense of self, a good sense of humour, spontaneity, curiosity and a sense of wonder.

Malbin also identifies several learning strengths frequently seen in individuals with FASD, such as strong visual memories, good verbal fluency and a positive use of visual language techniques. They can often learn effectively when tasks involve a hands-on approach. Their high energy level allows them to be involved in many activities. If they have a rich fantasy life, it enhances storytelling. Other strengths include creativity in visual arts and music, and athletic skills in individual sports.

The pattern for each person with FASD is unique, but teachers can become aware of individual strengths and needs, and can tailor programs and supports to build strengths and create hope for students with FASD.

30. Malbin 1999, Kleinfeld and Wescott 1993, Kleinfeld 2000.

Chapter 2: Key concepts for planning effective education programs

This chapter presents a framework of key concepts for working with students with FASD. This framework gives teachers a starting point for thinking about and understanding the complex issues of students with FASD. Teachers can make an important difference in these students' lives, but to do so requires knowledge, understanding and the willingness to collaborate with others. It also requires a sense of hopefulness and a belief that, with support, patience and understanding, these students will be successful.

Students with FASD often have complex learning disabilities, behavioural difficulties, and problems expressing and understanding language. Many of these problems are the result of underlying neurological impairments. These students can and do learn, but they often learn in atypical ways.



Different levels and patterns of prenatal alcohol exposure lead to variable neurological impairments that are reflected in learning and behaviour.

Organic brain damage in individuals with FASD initially occurs prior to birth and is a result of exposure to alcohol.

The reason for the variability in brain damage in this population is that each child has experienced a unique pattern in the timing and level of alcohol exposure prenatally. So theoretically, each will have a distinct pattern of neurological impairment. The amount of alcohol the mother drank and when she consumed the alcohol influences the structures that were developing in the fetus at that specific period. Each fetus is susceptible to damage depending on stage of development and metabolic factors of the individual fetus. Each mother has her own factors that affect alcohol metabolism, including her food intake and overall physical health. In the moment of interaction between exposure to the toxic properties of alcohol and specific development in the fetus, damage to developing structures can occur.

Students with FASD often demonstrate subtle and complex difficulties in many areas of functioning. Their brain damage can affect how they perceive new information, how they memorize and learn new skills and ideas, and how they recall previously learned facts, concepts, procedures and skills.

Variability is a key feature in the FASD population of students. There are no defining characteristics, such as a reading disability, low level of intelligence or muscle weakness, that are always evident in this population. It is also difficult to identify which learning and behaviour issues are related to underlying neurological impairments, and which are related to other environmental, physical or social-emotional causes.

Students with FASD present a range of learning difficulties. Some have reading and written language difficulties, and many students have mathematical reasoning difficulties. Levels of intellectual functioning can range from severe mental disabilities to above average functioning. Many students have weak social communication skills. Some have speech articulation problems or difficulty learning simple, basic grammar and vocabulary.

Building Strengths, Creating Hope

Students' in-class and in-school behaviours vary, depending on age and social context. Most students with FASD perform better in structured learning environments and in smaller learning groups. When settings change and become more complex, such as moves to a junior high or high school, students who did well in the more structured environment may have difficulty coping with the new challenges of a larger, less-structured setting.

As teachers deal with the behavioural and learning challenges of students with FASD, they need to keep in mind that the daily learning and behaviours of students are related in part to neurological impairments caused by prenatal alcohol exposure. The learning needs of these students are variable; two different students diagnosed with FASD do not necessarily act or learn in similar ways.

Parents and professionals report a significant shift in their perceptions once they understand that individuals with FASD have a neurologically-based disability. The following chart of Paradigm Shifts and FASD, adapted from the work of Diane Malbin, indicates ways teachers can shift their interpretation of a particular behaviour to take into account underlying neurological impairment.³¹

Paradigm Shifts and FASD³¹

From seeing the child as...	To understanding the child as...
<u>Won't</u>	<u>To Can't</u>
Bad, annoying	Frustrated, challenged
Lazy, unmotivated	Trying hard, tired of failing
Lying	Story telling to compensate for memory, filling in the blanks
Fussy	Oversensitive
Acting young, babied	Being younger
Trying to get attention	Needing contact, support
Inappropriate	Displaying behaviours of young child
Doesn't try	Exhausted or can't get started
Mean	Defensive, hurt
Doesn't care	Can't show feeling
Refuses to sit still	Overstimulated
Resisting	Doesn't "get it"
Trying to annoy me	Can't remember
Showing off	Needing contact, support
From personal feelings of...	To feelings of...
Hopelessness	Hope
Fear	Understanding
Chaos, confusion	Organization, comprehension
Power struggles	Working with
Isolation	Networking, collaboration
Professional shifts from...	To...
Stopping behaviours	Preventing problems
Behaviour modification	Modelling, using visual cues
Changing people	Changing environments

31. Adapted with permission from Diane V. Malbin, "Paradigm Shifts and FAS/FAE" (Portland, OR: Fetal Alcohol Syndrome Consultation, Education and Training Services, Inc., 1994) AND from Diane V. Malbin, *Trying Differently Rather than Harder* (Portland, OR: Fetal Alcohol Syndrome Consultation, Education and Training Services, Inc., 1999), p. 42.



Both prenatal and postnatal factors contribute to learning and behavioural difficulties.

Students with FASD may demonstrate not only central nervous system problems caused by prenatal alcohol exposure, but may also have other prenatal and postnatal factors that have negatively influenced brain development, and subsequent social adjustment and learning.

In addition to prenatal alcohol exposure, a variety of other genetic and prenatal factors may influence the learning and behaviour of children. Children can inherit genetic tendencies, such as the likelihood to develop diseases, as well as their cognitive and behaviour strengths and disabilities. A child's level of intelligence or tendency to have a reading disability may be related to an inherited pattern. Also, certain behavioural disorders, such as attention-deficit/hyperactivity disorder, are inheritable.

Children may also have experienced other toxic factors, such as nicotine, prenatally. In follow-up studies of children with FASD, many birth mothers report smoking and using other drugs during pregnancy.³² Tobacco use in pregnancy can lead to smaller newborns and childhood respiratory problems. Exposure to drugs, such as cocaine and heroin, can have negative effects on behavioural regulation.³³ However, compared to other drugs studied, alcohol seems to have the most pronounced and long-term effects on cognitive functioning, learning and behaviour.³⁴

Postnatal exposure to alcohol can also play a role in neurological development. Significant brain development occurs in the first two years of life. Some children continue to have postnatal exposure to alcohol through their mothers' breast-milk.³⁵

An important influence on overall cognitive, social and emotional adjustment is the nature of the caregiving situation. When children with FASD are raised in homes that provide nurturing, love, appropriate stimulation, resources and family bonding, there are immense benefits. A positive and stable early home life is one of the prime protective factors against developing secondary disabilities. It is important that families understand that children with prenatal exposure to alcohol may need long-term supports as a result of this brain damage.

Children can experience the protective factor of a stable, understanding, nurturing home and family environment in a variety of ways. Biological parents can work to become sober and learn the skills they need to parent and provide a positive home environment. Children can be placed soon after birth in nurturing, supportive foster or adoptive homes. Stable placements, and appropriate support and love, can give children the family experience they need for optimum growth and development. Most families want to work with school and community personnel to improve the lives of children with FASD.

Educators need to be aware of the risks to children who live in negative, disrupted home environments and experience inappropriate parenting. Some children with FASD live with family instability, neglect, abuse and multiple changes in caregivers. When parents continue to abuse substances and lead negative lifestyles, their children experience many threats and difficulties to their development. Such family factors should be considered when addressing the needs of these children at school.

32. Astley et al. 2000.

33. Fried 2002.

34. Streissguth et al. 1991.

35. Little et al. 1989.

Another factor that puts children with FASD at risk is lack of understanding of the reasons for their problems and difficult behaviours. This can be an issue in all kinds of family settings. Adoptive and foster parents may not be informed of the possibility of prenatal exposure. Even if the adoptive or birth family is aware that the biological mother drank during pregnancy, they may not understand that brain damage and other consequences may result from prenatal alcohol exposure.

When parents don't have a clear understanding of these children's complex needs, many frustrations, conflicts and problems occur. Typical child-rearing approaches may be unsuccessful with children with FASD. These children's failures can lead to disappointment and guilt for all family members. It is important that school staff understand the nature of these children's difficulties and ensure appropriate programming is in place.



A medical diagnosis creates an opportunity for understanding and is a protective factor against developing secondary disabilities.

Parents and teachers often require assistance and support to understand the needs of children with FASD, and adapt expectations for present and future performance. Often it is when children start school that their learning disabilities, and social and behavioural difficulties become obvious. In some cases, parents may have suspected problems from an early age. Diagnosis may be the first step on the path to understanding and accepting a student's limitations and special needs.

Teachers may be called upon to help in the diagnostic process. Teachers may be the first to note the learning and behaviour problems students are having. After trying the usual approaches to adapting instruction and modifying behaviour, it may become evident that a student is not responding like most others his or her age. At this point teachers can:

- document concerns in writing
- ensure all necessary academic and psychological testing is conducted in order to obtain a complete picture of the student's strengths and needs
- meet with parents to share test results and concerns
- arrange for a designated person from the school, either the psychologist or counsellor, to meet with parents to suggest a follow-up medical evaluation to obtain more information
- assist with the diagnostic medical evaluation by completing informal interviews, behavioural rating forms, and sharing school records and performance information.

FAS is a medical diagnosis and requires the expertise of a multidisciplinary team. The role of teachers is NOT to diagnose, but to communicate with parents and let them know that additional information is required to better understand and support the learning needs of their children. School psychologists or family physicians may suggest local clinics and/or multidisciplinary teams that can make a medical diagnosis of FAS.

Although a FAS diagnosis points to conditions with lifelong consequences, there is hope for the future. Diagnosis before the age of six is a universal protective factor reducing the likelihood of mental health problems, disrupted school experience, trouble with the law and confinement.³⁶

36. Streissguth and Kanter 1997.

Clear diagnoses lead to greater appreciation of children's needs and are a protective factor as children go through school. Eventually, adolescents and adults may receive special work status and social services based on their diagnoses. With appropriate training and support, the emotional and social problems (secondary disabilities) often seen in adolescence are less likely to occur.

Another advantage of a medical diagnosis is that it creates opportunities to offer support to birth mothers. Effective intervention with birth mothers helps ensure that future children are not at risk of FASD.



Students need early intervention and continual educational support.

Early intervention provides a crucial foundation for the development of skills, enhancement of relationships and prevention or minimization of secondary disabilities.

Early identification has a direct impact on parents' perception of their children and provides a context for understanding their skill and behavioural development. Early intervention programs through health regions and home visit programs emphasize an interactive approach to developing skills and relationships. By providing support, information and strategies to parents, challenges that can be frustrating and distressing are placed in the context of the disability rather than attributed to poor parenting or the motivational characteristics of children. Parental understanding and involvement provide the basis for effective family and school relationships.

Multidisciplinary teams can provide strategies for skill development. Speech-language pathologists, occupational therapists and psychologists can suggest developmental experiences that may have substantial impact during the first six years of life when the brain experiences significant growth. These consultants can continue to assess and provide valuable suggestions to address the unique learning patterns, strengths and needs of students throughout their life spans.

Early education programs maximize the effectiveness of learning experiences during the developing years. Strategies that emphasize providing support, reframing perceptions, developing environmental modifications and ensuring that successes are celebrated can be implemented early with the intention of maintaining such approaches throughout individuals' lives.

Early intervention is more than just working with children through their early years. It also emphasizes putting supports in place when transitions are about to occur or early on when challenges are first recognized. Involving parents, teachers and support personnel helps ensure individualized program plans (IPPs) are developed and implemented, and fosters communication and support between home and school. To learn most effectively, students with FASD require a creative combination of strategies, approaches and techniques tailored to their individual needs and strengths. To ensure generalization, skills taught in school may also need to be taught at home.

Building Strengths, Creating Hope

Learning for students with FASD, as for all students, continues throughout the life span. However, the developmental levels of functioning of students with FASD are often substantially below their chronological age expectations. Additional planning, training and support is warranted during the transition years from school into the workplace. Many students with FASD demonstrate lifelong disabilities that require ongoing support, education and management strategies. With appropriate education and support, these individuals will continue to learn. Many go on to live independently and contribute to their communities while others may need supportive family or group home settings.

Working with students with FASD can be challenging, however teaching these students can also be a rewarding experience. Through working with these children, teachers can learn more about how all children think and learn, and how to modify instruction for all students with special needs. Teachers can model the importance of seeing children with FASD as children first, looking for and identifying their strengths, and understanding and responding to the diversity of their needs.



Identifying and understanding individual strengths and needs is the starting point of effective programming.

Finding successful interventions for each student begins with understanding that individual and the world in which he or she lives. As teachers understand their students better, they can begin to program more effectively for them.

One helpful strategy might be having a consultant observe the student with FASD in the classroom setting while the teacher works with the class. This process can help the teacher and consultant work collaboratively to develop intervention strategies to use in the classroom and at home.

To start an analysis of students' strengths and needs, begin with classroom observation.³⁷ At the same time, ask parents about behaviour at home and conditions that affect behaviour. Formal assessments can be initiated at this point to determine cognitive, language and motor abilities, adaptive skills functioning and basic academic skills. Use this information to identify students' developmental levels. The developmental level should be the starting point for instructional planning. The developmental level is the equivalent functioning age level at which a student understands information, plays, speaks and completes tasks independently. Knowing the developmental age establishes appropriate expectations and levels of support. Even though skills and concepts need to match the levels of functioning of students, instructional strategies and materials used to teach these skills and concepts should be as age-appropriate as possible.

37. Hartness 2001.

The following chart compares standard behavioural expectations for chronological ages and contrasts them with actual developmental age abilities often seen in children with FASD.³⁸

Chronological age-appropriate expectations	Developmental age-appropriate expectations
Age 5	Age 5 going on 2 developmentally
Go to school Follow three instructions Sit still for 20 minutes Interactive, cooperative play, share Take turns	Take naps Follow one instruction Active, sit still for 5–10 minutes Parallel play My way or no way
Age 6	Age 6 going on 3 developmentally
Listen, pay attention for an hour Read and write Line up on their own Wait their turn Remember events and requests	Pay attention for about 10 minutes Scribble Need to be shown and reminded Don't wait gracefully, act impulsively Require reminders about tasks
Age 10	Age 10 going on 6 developmentally
Read books without pictures Learn from worksheets Answer abstract questions Structure their own recess Get along and solve problems Learn inferentially, academic and social Know right from wrong Have physical stamina	Beginning to read, with pictures Learn experientially Mirror and echo words, behaviours Require supervised play, structured play Learn from modelled problem solving Learn by doing, experiential Developing sense of fairness Easily fatigued by mental work
Age 13	Age 13 going on 8 developmentally
Act responsibly Organize themselves, plan ahead, follow through Meet deadlines after being told once Initiate, follow through Have appropriate social boundaries Understand body space Establish and maintain friendships	Need reminding Need visual cues, modelling Comply with simple expectations Need prompting Kinesthetic, tactile, lots of touching In your space Forming early friendships
Age 18	Age 18 going on 10 developmentally
On the verge of independence Maintain a job and graduate from school Have a plan for their lives Relationships, safe sexual behaviour Budget their money Organize, accomplish tasks at home, school, job	Need structure and guidance Limited choices of activities Live in the “now,” little projection Giggles, curiosity, frustration Need an allowance Need to be organized by adults

38. Adapted with permission from Diane Malbin, *Fetal Alcohol Syndrome/Alcohol-Related Neurodevelopmental Disorder: A Five-part Set of Information for Parents and Professionals; Set Five: Master Set: Collection of Set One Through Four* (Portland, OR: FASCETS, Inc., 1999), pp. 33–34.

Building Strengths, Creating Hope

Understanding students and their levels of performance helps teachers plan initial programming strategies. As teachers observe the effects of new strategies on students' daily learning, additional strategies can be introduced gradually. Build in an appropriate observation period to see if students improve with the new interventions before adding additional strategies.

Make adjustments to students' programs as needed. It may be necessary to take a step back and observe students once again to decide what strategies should be modified, discontinued or added.

Each student is a unique person with his or her own talents and gifts. It is important that educators help students with FASD develop and use their strengths and talents, and support them as they cope with their difficulties. Include positive activities in the daily routine of each school day. Many students have talents in music or art. Encourage athletics and create opportunities for them to help others. These students need opportunities to build their feelings of self-worth and experience success.



Collaborative planning and programming help teachers meet the complex needs of students.

A team approach can help classroom teachers better meet the complex needs of students with FASD. Perspectives and programming ideas from various education professionals, as well as from parents, can be helpful in planning comprehensive programs that address student needs. See Appendix A1, page 111, for sample questions to discuss during meetings with parents.

No single individual has all the knowledge and expertise required to understand and meet the complex learning needs of students with FASD. Collaboration, planning and programming are key to successful instruction. Collaborative teaming can take many forms.

A problem-solving approach is the core of effective collaboration, whether the team is large or small, formal or informal. The problem-solving cycle begins with identifying and clarifying the problem. The team works together to generate solutions and develop a plan of action. Timelines for implementation and a method for evaluation encourage team members to come back together to evaluate the plan and see if it is working. If necessary, the team can revisit the problem-solving cycle and address new or outstanding issues.

There are a number of guidelines for facilitating successful collaboration.

- Involve other teachers. Create opportunities for all teachers involved to raise concerns about student progress and engage in problem solving before there is a formal referral. Provide opportunities for every teacher to participate and receive support.
- Involve parents. Welcome parents as important team members. Recognize and respect both the information they can provide about their children and their contribution to children's programs.
- Involve students. Students can provide important information about their learning and will be more actively involved in their programs if they participate in setting goals. This is an opportunity for older students to learn valuable self-advocacy skills. The age and level of functioning of students will determine their level of participation.

Building Strengths, Creating Hope

- Involve administrators. School administrators' support is essential to success. School-wide acceptance of shared responsibility for the success of all students depends on strong leadership. Organizing a systematic process for collaborative program planning and ensuring that there is time for collaboration require the kind of supportive structure that only school administrators can create.
- Designate one school-based person to facilitate the process, seek out additional expertise, and organize and coordinate resources.
- Keep team membership flexible and draw on expertise available in the school. Do not limit the collaboration to formal interactions of a designated team. Encourage regular collaborative problem-solving meetings for smaller teams that are implementing and monitoring education plans.

To be successful, collaborative teams need:

- willingness to share and exchange expertise and resources
- acceptance of mutual responsibility and accountability for key decisions
- clearly established roles and responsibilities
- all members to contribute and all contributions to be valued
- training and supervision for teaching assistants, volunteers and peer tutors
- procedures for sharing observations and monitoring progress
- support from school administrators
- regular scheduled time for planning and communication. This is especially important if some programming is delivered outside the regular classroom. Team meetings can address issues, such as transition and generalization, links to classroom instruction, and common language and cueing systems for students.

Use a collaborative team approach in the development of individualized program plans (IPPs). IPPs are written commitments of intent by education teams to ensure appropriate planning for students with special needs. They are working documents and records of student progress.

There are a number of guidelines for collaborative development of IPPs.

- Actively involve parents in the IPP process.
 - Seek parental input prior to IPP conferences, e.g., send home a form seeking information about their goals, their children's preferences, etc.
 - Give parents the opportunity to specify how they would like to be involved in their children's education programs and keep them informed.
 - Assist parents in preparing for IPP meetings.
 - Discuss a draft IPP and invite meaningful input from the parents. Make changes and additions with their input. (Putting a signature on a finalized IPP with no opportunity for input may be discouraging to some parents.)
 - Provide parents with a copy of IPPs so they can support the goals at home.

See Appendix A2, page 112 for more strategies to enhance parent involvement in the IPP process, and Appendix A3, page 113 for a tip sheet for parents on participation in the IPP process.

- Actively involve students in the IPP process, increasing participation as they mature.
 - Involve students in setting goals and evaluating progress to increase ownership and motivation, as appropriate.
 - Involve students in IPP conferences, as appropriate.
 - Support students in taking responsibility for describing needs and seeking appropriate support.
 - Help students develop self-advocacy skills.
- Involve appropriate school personnel in developing IPPs.
 - All school personnel involved in providing instruction for students with FASD should be involved in developing IPPs. Regular classroom teachers are better able to use IPPs as instructional guides when they are involved in developing them.
 - IPPs are most effective when viewed in the context of an active problem-solving process, which can be facilitated by an organizational structure, e.g., Student Support Team model, that provides a forum for ongoing team planning.
 - Provide professional development and guidance for teachers to increase understanding of the purpose and structure of IPPs.
 - The culture and organization of the school should support the IPP process, e.g., time for involvement, communication, access to additional expertise.

For more information, see *Individualized Program Plans* (Alberta Education, 1995), Book 3 of the *Programming for Students with Special Needs* series.



Establish strong home-school partnerships.

Parents are important and essential partners in creating and carrying out effective education programs. They play a critical role in their children's daily lives and can help school personnel understand their children's behaviours and needs. Parents can help develop individualized program plans, and can continue the learning and behavioural strategies at home, reinforcing the school program. Children supported at home and at school in similar ways maximize their learning and have better opportunities to meet their potential.

Many families are eager to participate in partnership with school staff. They often know and use many effective ways to help their children learn, and have information and observations to share about their children's strengths and weaknesses. Some parents already have medical diagnoses of FASD for their children. Others have knowledge of FASD and are aware their children were exposed prenatally to alcohol. They may have previous evaluations and a range of resources to bring to school. These parents may be actively seeking out services and interventions, and will readily work with the school learning team to organize and collaborate. See Appendix A4, page 114 for tips on working with parents.

When developing an educational partnership with parents, keep the lines of communication open by:

- giving parents opportunities to identify goals for their children
- identifying and clarifying specific parental concerns and helping parents assess their family needs
- being aware of and discussing the parent-child relationship and interactions
- discussing current interventions parents are using.

For parents who are ready to examine the issue of FASD, school staff may be able to offer support and assistance in one or more of the following areas:

- providing ways to learn about the signs, symptoms, medical, social and behavioural consequences of FASD through brochures, videos, conferences
- supporting parents in setting realistic goals and expectations for their children and themselves
- keeping a positive focus on their children's strengths, talents and accomplishments
- facilitating referrals to other agencies, such as health and social services
- finding parent support groups and/or counselling with knowledgeable individuals
- encouraging parents to participate in parent education classes for parents of children with special needs. Typical childrearing practices may not be effective, however specialized parenting courses, such as those dealing with the parenting of difficult children, may be helpful.

A variety of techniques can be used for home-school communication. Communication books can be valuable tools for supporting students, and keeping both parents and teachers up-to-date on relevant issues. Completing checklists of agreed-upon behaviours is time efficient and may ensure more objective reporting. Phone contact and e-mails also work for many families. See Appendix A5, page 115 for an example of a home-school communication book.

Some parents may initially seem less willing to engage with the school or appear uncooperative. Usually there are reasons for these parents' reticence and resistance. One issue may be the parents' own history of negative school experiences. Parents may want to avoid school because they lack confidence in their own ability to deal with teachers. Other parents may have overwhelming health, economic and social difficulties, and limited energy to engage. They may feel that school staff cannot understand their current life circumstances. Cultural and language differences may also influence parental reactions. Some parents may be angry about their children's previous school experiences. They may have lost hope that their children will obtain the education they need. For such parents, it is essential that school staff continue to encourage participation.

School staff may use these strategies to try to involve parents who seem reluctant to participate.

- Continue to invite parents to come to school. Try a range of ways to contact them. In addition to letters or phone calls, see if there is a school staff member who could visit the home, such as a liaison worker.
- Ask for the assistance of a parent advocate, family service agency worker or group already involved with the family, such as a health agency or Child and Family Services.
- Offer to meet parents either at their homes or neutral locations, such as community centres or restaurants.
- Suggest parents invite a family member, friend or neighbour to come to meetings with them for support.
- Maintain a positive, understanding approach even when the response is negative.

Resources for parents:

- *The Parent Advantage* (Alberta Education 1998)
- *A Handbook for Aboriginal Parents of Children with Special Needs* (a video and guide for First Nations parents) (Alberta Learning, 2000)
- *The Learning Team: A Handbook for Parents of Children with Special Needs* (Alberta Learning, 2003)

Home-school partnerships provide initial support that will facilitate learning for students with FASD and set the stage for working with other community agencies.



Coordinating services ensures everyone works toward common goals.

Meeting the needs of students with FASD requires a coordinated effort, not only between home and school, but also among community organizations that serve students and their families. Many issues that require intervention in the classroom may also need to be addressed in day care, community mental health programs, recreational settings, job settings and possibly the legal system. The multiple needs of students with FASD often require multiple fronts of intervention and interagency cooperation.

Efforts in the greater community need to be two-fold—supporting individuals with FASD and educating the community about the prevention of this disability. There are a number of people, groups and agencies throughout the province that offer services related to FASD.

In recent years, resources have been developed in Canada to help members of the judicial system and police better understand the issues for individuals with FASD. These materials, written by Conry and Fast (2000), and Laporte et al. (2003) can be a helpful way for groups to educate themselves about legal issues related to working with individuals with FASD.

Ideas for successful community partnerships include:

- working collaboratively with parents to identify, plan and deliver appropriate programming and services
- establishing education programs to inform the community of the dangers of alcohol consumption by expectant mothers
- networking with external agencies to provide support to students, parents and school staff
- collaboratively developing transition plans with specified supports and services that will enable students to be successful.³⁹

Fetal Alcohol Spectrum Disorder: FASD Guidebook for Police Officers (2003) by Annette Laporte et al. is available from the following Web site:
www.asantecentre.org/pdf/latestfasguide.pdf.

Fetal Alcohol Syndrome and the Criminal Justice System (2000) by Julianne Conry and Diane K. Fast, is available from the BC FAS Resource Society, P.O. Box 525, Maple Ridge, BC, V2X 3P2; fax 604-467-7102.

39. Streissguth 1997.

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Chapter 3: Organizing for instruction

Many students with FASD require a specialized approach in different areas of their educational programming. Some students may show characteristics of FASD, but do not have a diagnosis. The following classroom strategies may be beneficial to organizing and supporting learning for all these students.

There are no perfect or fail-proof instructional strategies. Successful instruction is dependent on thoughtfully matching strategies with students' needs, trying out strategies in more than one context, observing and assessing how students respond, and using this new understanding to adapt instruction. Teachers need to ask themselves not *how can I teach this?* but rather, *how will my students best learn this?*⁴⁰

All of the educational strategies in this resource are based on the collective wisdom and experiences of teachers, consultants, parents and other professionals who have worked with or raised children with prenatal alcohol exposure. Until there are controlled, published research studies of strategies that are successful with students with FASD, teachers need to rely on the best practices identified by educators and parents.⁴¹ What may work with one student with FASD will not necessarily be successful with the next. This group of students is heterogeneous in their levels of performance, and patterns of strengths and difficulties. Teachers can adapt these strategies to best meet the individual needs of their students. Using a flexible, thoughtful approach, and maintaining an accepting and supportive attitude, are key to effective programming for these students.

A number of relevant instructional strategies are described in Alberta Learning's *Programming for Students with Special Needs* series, including *Teaching for Student Differences* (Book 1), *Teaching Students with Learning Disabilities* (Book 6), and *Teaching Students with Emotional Disorders and/or Mental Illnesses* (Book 8).

Structure the physical learning environment

Structuring the physical school and classroom environment contributes to effective educational programming for students with FASD. A thoughtfully structured physical environment can also benefit other students with special needs.

Many students with neurological impairments react to their physical environments in atypical ways. Because of poor sensory processing, they may not perceive physical stimuli as other students might. These students may become distracted in a typical elementary classroom that has bright lights, a number of activities happening simultaneously or loud noise levels. They may have difficulty focusing their attention and may become overwhelmed in stimulating classrooms. Some students may even hide under their desks or in a corner to reduce stimuli. Others may run wildly around the room, talk loudly to themselves or act out in other ways. Planning a safe, calm, flexible, efficient instructional setting will make instruction and learning more effective. The goal is to match the level of physical stimuli with a student's ability to make sense of stimuli from the environment. Students with FASD benefit from a structured, supportive approach to creating and modifying the learning environment.

40. Politano and Paquin 2000.

41. Kleinfeld and Wescott 1993.

Use the Environmental Scan of the Classroom, Appendix A6, pages 116–117, to assess the physical set-up of the classroom and how it might affect learning and behaviour.



Create a calm, quiet environment.

Samples of specific strategies

- ▷ Use carpeting on the floor, or a portion of the floor, to reduce the noise level. Carpeting should be plain or neutral coloured so that it is not visually distracting.
- ▷ Put tennis balls or carpet pieces on the ends of the legs of desks or chairs to reduce noise as students move their desks and chairs.
- ▷ Use acoustic ceiling tile to reduce the amount of sound reflected from the ceiling back into the classroom.
- ▷ Note if there are any noises that are bothersome and take steps to reduce them, e.g., buzzing or humming lights and heating pipes, sounds of passing traffic and noises from other classrooms.
- ▷ Use headphones for quiet time. Students with FASD are not always able to block out noises and may be distracted by a teacher talking with another student or even a ticking clock.⁴²
- ▷ Set a quiet tone with relaxing music.
- ▷ Use study carrels to break up the space in the classroom. Such partitions can reduce classroom noise and visual distractions. They also decrease social interactions between students during independent work time.
- ▷ Arrange classroom furniture and partitions to create traffic patterns that discourage running and decrease students' tendencies to bother each other while they work.
- ▷ Reduce decorations, posters and displays on the walls.
- ▷ Consider using window coverings to reduce the effects of noise, temperature and light.

42. Reproduced with permission from Judith Kleinfeld and Siobhan Wescott (eds.), *Fantastic Antoine Succeeds! Experiences in Educating Children with Fetal Alcohol Syndrome* (Fairbanks, AK: University of Alaska Press, 1993), p. 335.



Organize the space and furniture for flexibility in instruction.

Samples of specific strategies

- ▷ If there is sufficient space, organize the classroom into several distinct activity areas. For example, the room can be organized with a computer area, a science area, an art area or other areas devoted to specific subjects and activities. In each place, students learn that they are to do specific tasks.
- ▷ Use study carrels and other independent spaces as “private offices” where students can work. These carrels can be used to limit distractions or as a place for students to calm down and regain composure after behavioural outbursts. Carrels should not be associated with punishment where students are sent only when misbehaving.
- ▷ Create separate workspaces for different tasks or different parts of the day. For example, a table at the front of the classroom can be used for group instruction or seatwork. Tables at a different location can be designated for small group work or independent work.



Organize personal workspaces to promote organization and develop independent work habits.

Samples of specific strategies

- ▷ Give students additional space near their desks to organize their belongings. A shelf or plastic tub can be used to store personal materials. Placing items at eye level may make materials easier to find and put away.



- ▷ Put supplies in boxes. Label the boxes with picture clues as well as words. Ensure that these boxes remain in the same location so students always know where to look for them. Colour code the boxes or their labels, e.g., yellow for language arts, blue for math.⁴³
- ▷ Provide boxes with pencils, pens, pencil crayons, scissors, glue sticks, rulers and paper that students can borrow. Students are able to be more independent if there are classroom supplies they can borrow without asking.⁴³
- ▷ Work cooperatively with individual students to find out what they need to organize themselves. Ask questions like these.
 - “What are some ways to arrange the inside of your desk so that the paper, pencil and eraser are always close at hand?”
 - “What should you do with your homework so that you can always find it quickly?”Brainstorm ideas with students and write down suggestions. Encourage students to choose one or two strategies to focus on.
- ▷ Encourage students to keep track of their own materials by labelling personal items and storage locations with their own names, pictures or a personal symbol in a colour of their choice.
- ▷ Encourage students to place notebooks, pencils, erasers, rulers and other materials in the same spot at the end of each activity.



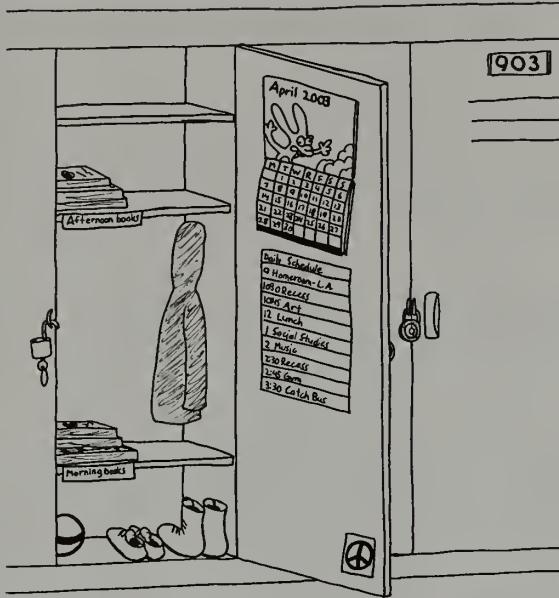
Ensure lockers are easy to access.

Samples of specific strategies

- ▷ Whenever possible, assign individual lockers (versus shared lockers) in a less-travelled location or at the end of the hall.
- ▷ Make sure locks are easy to open. Key locks may be more appropriate than combination locks.
- ▷ Encourage students to keep their lockers organized using strategies, such as keeping books for morning classes on the bottom and afternoon books on the top.
- ▷ Schedule a regular weekly clean-up to keep lockers free of clutter.

43. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 76.

► Post the daily schedule and monthly calendar of assignments on inside of locker doors.



Develop effective routines



Develop consistent routines that support learning.

Teaching a routine effectively requires direct instruction, practice and monitoring. Use clear and concise vocabulary. To avoid confusion, limit conversation during instruction and focus on essential information. New routines can take from two to six weeks to learn.

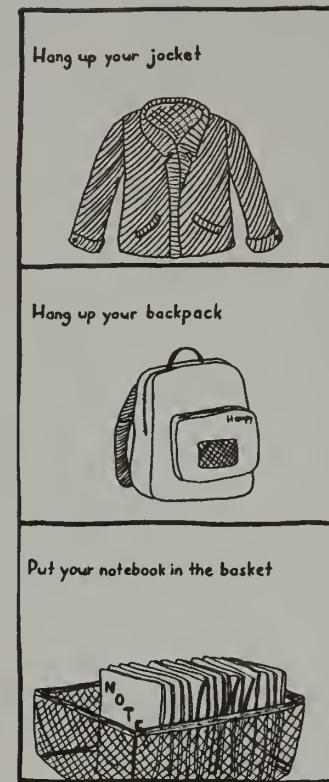
Establishing classroom routines is an important step in classroom organization. Work with students to develop expectations in the following areas:⁴⁴

- coming into class
- interacting with others
- requesting teacher attention, permission or assistance
- accessing supplies or equipment
- maintaining time on task
- completing assignments
- using unstructured time
- requesting choices or alternatives
- requesting time to talk to the teacher about something personal
- knowing what to do in emergencies.

44. Adapted with permission from Edmonton Public Schools, *Planning Student Programs: Health, Grades 1 to 9* (Edmonton, AB: Edmonton Public Schools, 1993), Section II, p. 6.

Samples of specific strategies

- ▷ Provide checklists of routines that students can see and use at their desks.
- ▷ Generate checklists for specific routines in the classroom. Strategically place these around the classroom, in the coatroom, listening corner, reading centre and on students' desks, so students are reminded of the routine in those areas.
- ▷ Use a pocket chart to show the activities that are coming up during the school day. Include starting times and other important information.⁴⁵
- ▷ Encourage the use of self-talk as students follow the checklists. Model and practise what to do in each routine. Initially make routines short (one to three steps) and gradually add extra steps.
- ▷ Provide pictures as well as words to describe routines.
- ▷ Teach routines with correction, not consequence.
- ▷ Eventually, encourage students to develop their own sequentially ordered lists of activities and tasks they need to complete regularly. These routines can be related to such areas as personal care or homework.



Teach time concepts

Students with FASD often have difficulty learning and using time concepts. They frequently take many years to learn to tell time using an analog clock. Even if they can read a digital clock or watch, they may not have a real sense of how long a minute, hour or day is. Abstract concepts introduced at the preschool level, such as "yesterday, next week and last year," may still have little meaning for the junior high student with FASD. When they have to work within a specific time schedule, they may not understand what is required or have strong enough time concepts to meet the demands of the task. Showing time in physical, concrete ways can help these students develop a better sense of time and work more effectively within time limits.

45. Reproduced with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 77.



Create concrete ways to teach time concepts.

Samples of specific strategies

- ▷ Use pictures, charts and large visual formats to teach time. Use items like an egg timer, an hourglass or a growing plant to show change related to time passage.
- ▷ Post a visual chart of the daily schedule with times of activities. This helps students learn that there are patterns and it may reduce students' anxiety about what might be happening next. The chart provides a way for students to independently answer frequently asked questions, such as "What's next? What are we doing today? When is lunch?"
- ▷ Have students tape their own time schedules to their desks or in a specific place in their notebooks or binders. Include pictures of activities for younger students. Students can work through their schedules by removing pictures from the schedule after completing activities, or marking the current activity on the schedule with a paper clip or removable highlighting tape.
- ▷ Use classroom calendars to help students see that there is a predictable pattern to the school week and year. Explaining how calendars work and referring to them ensures students eventually learn time concepts by connecting more abstract concepts with the concrete, visual cues teachers supply.
- ▷ Whenever possible, advise students in advance of changes in the daily routine and schedule. Use several ways to explain the altered time pattern including words, picture charts and printed schedules.



Teach time-management skills.

Sample of a specific strategy

- ▷ Help students learn to use planning and assignment books to record their activities and assignments. At first it may be necessary to custom design easy-to-use formats with large squares and clearly labelled sections. Eventually, students should keep their own daily calendars.

Build skills for participating in whole class instruction

Just like other children, students with FASD almost always want to be part of the group and have friends. However, because of their cognitive and behavioural difficulties, they may lack skills for participating appropriately unless situations are planned to prevent potential problems.

At times, students with FASD may be overstimulated in group settings. Group size and the nature of the activity, as well as the time of day, may influence how well they can attend and participate. One student with FASD may work well in a small specialized group but may be out of control in a larger classroom. Each student must be assessed individually for his or her ability to perform in various groups and in various environments.



Use instructional techniques that increase students' capacity to focus and attend.

Samples of specific strategies

- ▷ Ensure students have stopped the task they are working on before giving instructions for the next task. Give warnings that a change in activity will occur by turning off the lights, playing a particular piece of music or ringing a bell.
- ▷ Provide instruction in focusing and attention-training techniques, such as visualization, self-talk, organizational strategies and the ability to attribute personal success to personal effort.
- ▷ Use nonverbal cues and prearranged “secret” signals to regain students’ attention. Avoid drawing unnecessary attention to or embarrassing students by constantly calling their names. A secret signal could be moving to the area in front of their desks cueing that they need to listen or they will be called on next. A special hand signal may also work.
- ▷ Encourage students to keep their desks clear of all materials except for those required for the task at hand.



Use planning and pacing to increase students' capacity to attend to and follow oral instruction.

Samples of specific strategies

- ▷ Move into new areas of academic instruction gradually, always reviewing past material so students can experience some degree of success.
- ▷ Preview new concepts and vocabulary at the beginning of learning activities, and highlight important concepts again at the end.
- ▷ Provide directions and new information in clear, well-articulated and simply constructed sentences with natural pauses. Allow students time to process between sentences. Be precise and concise in your instructions.
- ▷ Simplify directions by making them as specific as possible to the task at hand.
- ▷ Divide assignments into short, manageable tasks. Give directions for each short task.

- ▷ Move around the classroom. To cue individual students to pay attention, stand by them, place a hand on their shoulders or desks, or move closer. Use eye contact and visually scan the classroom to focus students' attention.
- ▷ Ensure students understand the sequence of instructions given before beginning any independent work. Ask students to repeat instructions in their own words and demonstrate what they are being asked to do. Many students can repeat instructions verbatim, but do not know how to transfer that set of verbal directions into specific behaviours.
- ▷ Review instructions on an individual basis for students who have comprehension difficulties.



Use visuals to support instruction.

Samples of specific strategies

- ▷ Accompany spoken instructions with written instructions for later reference and to enhance recall.
- ▷ Use visual references, such as pictures, diagrams, graphic organizers, outlines, models and demonstrations, along with verbal instructions and information.
- ▷ Use highlighting pens or cutout frames on overhead transparencies to capture essential features of a task. Use bingo chips and coloured transparency strips to highlight key information on overheads used during instruction. Some students benefit from having a print copy of the overhead master on their desks for easy reference during instruction.
- ▷ Write important information on the board to reinforce and focus students' attention. Use coloured chalk to underline and emphasize specific words and information.



Allow movement and nontraditional approaches to eye contact during listening activities.

Many students with special needs do not appear to be listening when they actually are. Requiring them to sit perfectly still, hands on their laps and eyes on the teacher, often leads to stimulus overload. If they focus on these requirements to control their bodies, they may have difficulty processing what is being said.

Samples of specific strategies

- ▷ For some students, cultural differences make sustained eye contact problematic. Allow students to attend visually for briefer periods.

- ▷ Some students benefit from being allowed to play with something in their hands, such as plasticene, a small toy or ball, while listening. This physical activity can channel excess tension and provide a release, allowing students to improve their capacity to listen, attend and process information.
- ▷ Some students might benefit from a small inflatable cushion on a chair or on the floor. This type of cushion allows the student to get “the wiggles” out while still sitting.



Structure student groupings.

- ▷ Be flexible when forming student groupings. Try to help the student with FASD become involved with others of the same-age group in positive ways. Observe the student’s performances in groups. Does he or she perform at a higher level of cooperation and engagement when mentored by an older student? Does the student improve when given independent playtime with younger children at his or her developmental level? Try to provide an optimal learning group.
- ▷ When planning group activities, pair the student with FASD with students who act with tolerance toward others. Encourage students to treat each other in positive, accepting ways.
- ▷ Circulate around the room to assist small groups and reinforce cooperative working behaviour.

Teach social and adaptive skills

Many students with FASD have difficulty developing functional and adaptive living skills. These difficulties relate to limitations in cognitive and language capacities, that in turn reflect underlying neurological impairments. Students may have problems with social communication skills and complex thinking, such as planning, predicting, organizing and generalizing.

Many adolescents and adults with FASD appear emotionally immature even if they have normal intelligence levels and adequate academic skills. They often act like children half their chronological age. For example, a 14-year-old with FASD may appear like a seven-year-old emotionally. Because of the discrepancy between chronological age, and adaptive living and social skills age, individuals often have difficulty relating to same-age peers, keeping jobs and following community rules. Teaching functional skills that are culturally relevant is an essential part of educational programming for most students with FASD.

Learning functional and supportive life skills helps students live and succeed in the everyday world. Most students acquire these adaptive skills incidentally and intuitively by observing others, modelling adults and peers, and being surrounded by people who use these social skills. Students with FASD need to be systematically taught these same skills and practise them in the settings where they will be used.

Essential and Supportive Skills for Students with Developmental Disabilities (Alberta Education, 1995) provides examples of life skills in the areas of: domestic and family life, personal and social development, leisure/recreation/arts, citizenship and community involvement, and career development.

A functional life skills program:

- allows for multiple teaching opportunities
- leads to meaningful outcomes for students
- is appropriate to students' developmental levels
- focuses on students' strengths, talents and positive accomplishments so they experience success and feelings of self-worth.

Many individuals with FASD require some form of structured, supported living situation and/or ongoing supervision throughout their lives. They may require assistance in developing appropriate social interaction skills. Some students take longer to acquire skills but are able to achieve relative independence.

To enhance skill development, social skills instruction should begin during early intervention programs and be systematically integrated into all programming areas throughout students' educational experiences.



Assess social and adaptive skills on an ongoing basis.

Assessment of functional life skills should:

- be conducted frequently
- be conducted in the context of the natural environment
- focus on present and future environments in which students will live and work.

An important part of any assessment of adaptive and social skills involves obtaining information from parents through informal interviews. Behavioural scales and checklists can also be helpful in rating the level of student functioning and performance.



Teach skills students need in daily life.

Samples of specific strategies

- ▷ Involve students in selecting the skills they want and need to learn.
- ▷ Develop checklists of basic social and living skills.
- ▷ Teach safety and street-crossing skills.
- ▷ Teach simple money management, social interaction skills and work-related social skills.
- ▷ Teach and reinforce appropriate leisure skills.



Create a supportive learning environment to develop social skills.

Samples of specific strategies

- ▷ Manage the environment so students have opportunities to learn and practise social skills.
- ▷ Teach social skills in natural and supportive environments.
- ▷ Establish clear boundaries between appropriate and inappropriate behaviours.
- ▷ Provide appropriate levels of supervision.
- ▷ Enforce limits over and over.
- ▷ Integrate culturally relevant values, such as making eye contact, giving compliments and asking questions.
- ▷ Focus on the social skills that students will need to be successful in both present and future environments.
- ▷ Use concrete examples and visual aids to enhance social learning.
- ▷ Use praise and reinforce often.
- ▷ Teach skills specific to an environment.
- ▷ Teach critical aspects of communication, such as posture, eye contact, voice quality and proximity.
- ▷ Introduce the concept of seeing things from another person's point of view. Most students need a lot of support with this concept.
- ▷ Teach appropriate ways to express feelings and say "no."
- ▷ Use assessment tools, such as the Getting Along with Others Inventory, Appendix A7, pages 118–119, to help identify and set goals for specific social skills. Consider which inventory items are appropriate for individual students.
- ▷ Offer learning situations that are cooperative versus competitive.
- ▷ Use peer support and mentoring to enhance learning.
- ▷ Encourage students to pursue their personal strengths. Provide at least one experience a day that uses strengths. For example, if a student is musically talented, include a choir practice or music class in his or her daily program.
- ▷ Ensure that students' times for special assistance, such as tutoring or work completion, do not conflict with favourite activities or those times in the day when they can demonstrate strengths and talents.



Use role-playing and practice in context.

One effective instructional strategy for helping students learn new skills is the use of role-plays. Role-playing allows students to try out words and behaviours they need in different situations.

Role-playing is acting out situations, usually without costumes or scripts. The context for the role-playing situation is discussed and roles are selected or assigned. Students have planning time to discuss the situation, choose different alternatives or reactions and plan a basic scenario. Role-plays can be done in pairs with no observers or can be done in front of a supportive group of observers. Sharing the role-play with a larger group encourages accountability, provides opportunities to learn from others and may provide a frame of reference for class discussion. At the conclusion, students have an opportunity to discuss how they felt and what they learned about that particular situation. An important part of role-play is the follow-up discussion.⁴⁶

Role-playing can be done in small groups or as a whole-class activity. Role-plays involving one student and an adult are also effective.

Learning a series of skills in a role-play situation does not guarantee that students can successfully apply those skills in the natural environment. Many students with FASD have difficulty generalizing from role-play situations to daily life. It is often necessary to teach and practise social skills in hallways, cafeterias and other places in the community where they will be required.

Role-playing provides students with opportunities to explore and practise new communication skills in a safe, nonthreatening environment, express feelings, and by taking on the role of another person, “walk in another’s shoes.”⁴⁶

To use role-plays in the classroom:

- always have students role-play positive aspects of skills or situations
- if it is necessary to role-play negative situations, teachers should take on the negative roles
- provide specific situations
- provide time for students to develop and practise their role-plays (five to 10 minutes is usually sufficient)
- limit the use of costumes and props
- provide students with tips for being participants and tips for being observers
- always follow with discussion.⁴⁶

Share the following tips for role-play participants.

- Face the audience, and speak loudly and clearly.
- Don’t rely on props or costumes. Use body language to communicate your message.
- Focus on your role-play partners and the message you want to communicate.⁴⁶

46. From Alberta Learning, *Kindergarten to Grade 9 Health and Life Skills Guide to Implementation* (Edmonton, AB: Alberta Learning, 2002), pp. 83–85.

Share and discuss the following tips for being good observers.

- Show good listening by keeping quiet and still during role-plays.
- Be supportive by clapping and using positive words of encouragement and feedback.
- Laugh at appropriate moments. Do not laugh at role-play participants.⁴⁶

During role-plays, observe how students are handling the situation and consider:

- are concepts being expressed accurately in language and action
- are any students confused or uncertain about the purpose, use of materials or their roles
- are changes needed in space arrangements or materials?⁴⁶

In the classroom, role-plays can be an effective strategy for practising new skills and exploring new ideas. They can address several of the multiple intelligences,⁴⁷ and be motivating and memorable learning activities.⁴⁶ Once students have completed a role-play successfully, teachers can videotape the correct interaction to reinforce the skill. Students can view themselves performing social skills as many times as needed. Watching themselves on video can be motivating for many students.



Use social stories to teach social understanding.

Another effective strategy is the use of social stories. Social stories describe social situations that are difficult or confusing for students. Each story identifies and describes relevant social cues and desired responses to a target situation. They are written at a level that considers students' abilities and learning styles.⁴⁸ Pictures can also be used to help make stories clear.

A social story for a student who has difficulty handling frustration may be accompanied by picture illustrations and read like this:

If you get upset . . .	<ul style="list-style-type: none">• No crying• No hitting the table.
You need to . . .	<ul style="list-style-type: none">• Relax• Put your head down• Have a quiet voice.⁴⁹

Many of the social routines outlined in prosocial skills resources, such as *Skillstreaming in Early Childhood* by McGinnis and Goldstein, can be individualized to student needs and become social stories. These social stories can be scripted into simple video role-plays or taped so students can revisit them.

46. From Alberta Learning, *Kindergarten to Grade 9 Health and Life Skills Guide to Implementation* (Edmonton, AB: Alberta Learning, 2002), pp. 83–85.

47. Gardner 1993.

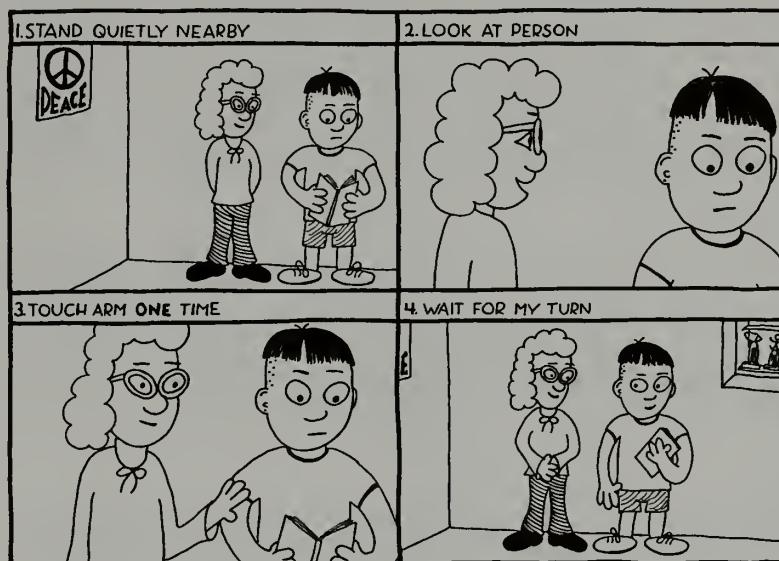
48. From *Teaching Children with Autism, Strategies to Enhance Communication and Socialization* (p. 222) 1st edition by QUILL. © 1996. Reprinted with permission of Delmar Learning, a division of Thomson Learning. www.thomsonrights.com. Fax 800-730-2215.

49. Reproduced with permission from Linda Q. Hodgdon, "Solving Social-behavioural Problems Through the Use of Visually Supported Communication," in Kathleen Ann Quill (ed.), *Teaching Children with Autism* (New York, NY: Delmar Publications, 1995), p. 282. For more information, visit www.usevisualstrategies.com.

Social stories:

- describe correct behaviours and responses for situations
- have a nonthreatening tone
- translate goals into understandable steps
- teach a variety of appropriate strategies to assist in coping with behaviours, such as aggression, fear or compulsions
- teach new routines and rules
- help students handle changes in routines
- present academic material in a realistic, concrete manner⁵⁰
- teach sequencing skills.

Getting a Person's Attention



Teach bullyproofing skills.

Students with FASD are often gullible and may be vulnerable to teasing, bullying and victimization. Assertiveness training can require high-level thinking skills and a high degree of social awareness. Some students benefit from class discussion of bullyproofing while other students may need one-to-one coaching.

Samples of specific strategies

- ▷ Discuss the many reasons why people bully others, including feelings of unhappiness, loneliness and frustration, illusions of power, and attempts to make themselves feel bigger and stronger. Use concrete examples and simple language.

50. Adapted from Carol Gray (ed.), *The Original Social Story Book* (Jenison, MI: Jenison Public Schools, 1993), p. 1 (Social Story Kit). Adapted with permission from Future Horizons, Inc.

- ▷ Discuss how students feel when they are bullied. Emotions include fear, sense of helplessness, depression or feelings of powerlessness.
- ▷ Discuss the reasons why people who witness bullying sometimes walk away. Reasons include being scared they'll get hurt, not wanting to be called names, not knowing the people involved or not caring enough to get involved.
- ▷ Outline and role-play specific strategies to help stop bullying. Examples follow.⁵¹
 - In a clear, forceful manner, tell the person who is bullying to stop.
 - Let the person know you are going for help and find a teacher or another adult to step in.
 - Invite a person who gets bullied to have lunch or join in an activity with you.
- ▷ Use class discussion to brainstorm and role-play strategies to avoid being bullied. Strategies include:⁵²
 - stand up straight and look confident
 - diffuse situations with humour, such as snappy comebacks
 - distract bullies with compliments
 - refuse to get into physical fights
 - stick with friends
 - tell someone you trust.
- ▷ Explain how bullying on television or in the movies is often portrayed as funny but in real life, bullying is unpleasant and hurtful.
- ▷ Through class discussion and brainstorming, develop a class tip sheet on strategies for bullyproofing. Review and post short, simple tips.



Provide appropriate health and sexuality education.

Socially appropriate behaviours must be incorporated into instruction on a regular, systematic basis from an early age. In *Just Say Know*, Hingsburger (1995) outlines several challenges that arise when providing appropriate social-sexual instruction including: confused self-concepts, isolation from heterogeneous groups of peers, lack of sexual knowledge, learned patterns of inappropriate sexual behaviour, inconsistent social-sexual environments and lack of personal power.⁵²

To modify health and sexuality education programs for students with FASD:

- present information in small units
- increase the use of concrete, visual materials
- increase the use of role-play situations to practise skills
- use additional supports, in context, to assist in applying knowledge to everyday situations.

51. The Alberta Teachers' Association 1999.

52. Hingsburger 1995.

Watch for signs of sexual abuse, such as:

- unusual or sophisticated sexual behaviour
- talking about sexual issues in public
- compulsive compliance behaviours
- extremes in behaviour, such as being overly private or lacking a sense of privacy
- changes in daily living skills, social or performance skills
- changes in emotional stability, including loss of emotional response, loss of appetite, avoidance of former close friends, changes in leisure habits
- changes in sexual expression, aggression, noncompliance and accident proneness.⁵²

To build a community of safety that supports students with FASD:

- identify one person in the school that a student trusts and can talk to
- teach students refusal skills—allow opportunities for students to say “no” and have that decision honoured
- develop privacy awareness, and help students develop a healthy self-concept and self-confidence
- remind students not to go with strangers or allow themselves to be manipulated by others
- provide an environment that promotes and supports appropriate interaction skills with others.⁵²

Plan for nonclassroom settings

Students with FASD often experience difficulty adjusting to nonclassroom school settings, such as the playground, school bus or lunchroom. Success in these settings requires extra planning and supports. To work successfully with students with FASD, support personnel, such as bus drivers and lunchroom supervisors, may require extra training and coaching.⁵³



Develop strategies for positive playground and recess experiences.⁵³

Samples of specific strategies⁵³

- ▷ Review expectations and routines for recess shortly before recess.
- ▷ Consider alternatives to recess, such as use of computer room, games room or the gym.
- ▷ Find a student to act as a special buddy to the student with FASD during recess.
- ▷ Provide a clear but limited number of choices.
- ▷ Have teacher aides supervise a select group of students on the playground, if necessary.
- ▷ Allow students with FASD to help supervise younger students during recess.

52. Hingsburger 1995.

53. Adapted, by permission of Manitoba Education, Citizenship and Youth, from *Towards Inclusion: Tapping Hidden Strengths: Planning for Students Who Are Alcohol-Affected* (Winnipeg, MB: Manitoba Education, Training and Youth, 2001), pp. 5.16–5.17.

- ▷ Develop a plan for handling emergency situations that occur on the playground.
- ▷ Consider an alternate recess time. Some students benefit from a recess with a small group rather than the entire school population.
- ▷ Structure recess activities to avoid potential problems. Arrange specific activities, teach games, assign equipment, designate areas for individuals to play.



Develop strategies to ensure a safe lunch hour.⁵³

Samples of specific strategies⁵³

- ▷ Provide information and training about lunchroom expectations and routines.



- ▷ Teach a lunch-hour routine.
- ▷ Post lunchroom rules in print and visual formats.
- ▷ Provide training to lunchroom supervisors.
- ▷ Assign seating with appropriate peers in the lunchroom.
- ▷ Arrange activities to fill the lunch break, such as videos, supervised gym activities or art projects.
- ▷ Consider an alternate lunch setting for a small number of students.
- ▷ Develop a plan for handling emergency situations with the school administration.

53. Adapted, by permission of Manitoba Education, Citizenship and Youth, from *Towards Inclusion: Tapping Hidden Strengths: Planning for Students Who Are Alcohol-Affected* (Winnipeg, MB: Manitoba Education, Training and Youth, 2001), pp. 5.16–5.17.



Develop strategies for riding the school bus.⁵³

Samples of specific strategies⁵³

- ▷ Provide the bus driver with strategies for working with students who have FASD.
- ▷ Provide classroom and on-bus training to students.



- ▷ Use a bus seating plan, placing students who have FASD with appropriate peers.
- ▷ Post bus rules with visual prompts.
- ▷ Teach and reteach routines and expectations.
- ▷ Use social stories to prepare students for the bus ride.
- ▷ Provide the bus driver with a way to communicate concerns.
- ▷ Provide extra supervision on the bus for students with severe difficulties, if necessary.

53. Adapted, by permission of Manitoba Education, Citizenship and Youth, from *Towards Inclusion: Tapping Hidden Strengths: Planning for Students Who Are Alcohol-Affected* (Winnipeg, MB: Manitoba Education, Training and Youth, 2001), pp. 5.16–5.17.



Plan for transition to new programs.

Plan activities to help students prepare for smooth transitions to new programs, new environments and from one grade to the next.

Samples of specific strategies

- ▷ Include collaborative, comprehensive transition plans in IPPs.
- ▷ Organize a student support team meeting to ensure students moving from one program to another have smooth transitions.
- ▷ Help students identify, compile, think about and share relevant information with receiving teachers, such as:
 - what they like, their strengths and their difficulties
 - aspects of their lives that are important to them, e.g., share pictures of families or pets
 - the subjects or times of the day they find most difficult, and the subjects or times of the day they do best in
 - friends or individuals with whom they identify.
- ▷ Give students opportunities to create collages or videos of themselves involved in activities that indicate something important about themselves. They can share these products with their new teachers.
- ▷ Help students choose samples of work from various subject areas to share with receiving teachers. They can comment in writing (scribed if necessary) why they have chosen items and what they indicate about their skills.
- ▷ Organize visits to new sites and arrange for students to use the facilities, such as home economics rooms, shop rooms or cafeterias.
- ▷ After the visits, talk with students about aspects of the environment that they find frightening or intimidating.
- ▷ Orient students to school buildings, grounds and bus stops.

Help students generalize new skills and concepts

Students with FASD frequently encounter difficulty transferring skills from the initial teaching situation to new situations. To encourage generalization of learning, select individual program goals that can be taught across learning situations. Consider all the times throughout the day and the different ways students may be required to carry out specific tasks. Give students opportunities to use the same skills and strategies in different settings, and with different teachers and peers.

Building Strengths, Creating Hope

The curriculum matrix is a tool teachers can use to determine how students can use one skill in several different settings.

Curriculum matrix⁵⁴

NAME									
IPP GOALS	Math	Social	Health	L.A.	I.A.	Foods	Drama	Home	Voc.
Goal 1: Evaluate possible plans and select one	X	X	X	X	X	X	X	X	X
Goal 2: Demonstrate increased ability to make decisions	X	X	X		X		X	X	X
Goal 3: Be actively engaged in a variety of new learning situations	X				X	X	X	X	X
Goal 4: Learn and apply a variety of new strategies to improve study skills	X	X	X	X				X	
Goal 5: Work cooperatively with others	X	X	X	X	X	X	X	X	X

The matrix links goals from a student's IPP with instructional opportunities for practising and achieving these goals. To create a matrix, list individualized program plan goals in the left column, and courses of study and activities across the top. To encourage generalization of skills to settings outside the school, include home and community. Identify learning goals that can be taught logically and appropriately during specific courses and activities. Eventually, students will begin to generalize skills from one situation to another.⁵⁴

Target skills for generalization that are:

- used frequently and in several situations
- reinforced in the natural environment
- critical to students and likely to increase their independence both at school and home.

Samples of specific strategies

- ▷ Teach skills in several different settings.
- ▷ Use real-life situations, and realistic materials and learning environments, whenever possible.
- ▷ Provide additional prompts to help students recognize when to use the skill.
- ▷ Initially, encourage all teachers involved to use the same wording, approaches, sequences and materials with the student.
- ▷ Build skills into a routine or chain of related skills.

54. From "Meeting Functional Curriculum Needs in the Middle School General Education Classrooms" by Sharon Field, Barbara LeRoy and Sharon Rivera, *Teaching Exceptional Children*, 26, 2, 1994, p. 42. Copyright 1994 by The Council for Exceptional Children. Reprinted with permission.

Building Strengths, Creating Hope

- ▷ Communicate with the home as new skills are mastered. If appropriate, encourage use of skills at home.
- ▷ Provide a periodic reinforcement schedule to ensure skills are maintained.
- ▷ Conduct periodic assessments to determine how well students are generalizing concepts or skills.
- ▷ If the skill is not generalized, re-teach it.

The SCORES model⁵⁵ on the next page outlines important components to consider when planning for students with FASD. The model summarizes basic concepts and strategies presented in Chapters 2 through 5. It is a tool school teams can use as they plan programming strategies and interventions for students with FASD.

55. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 150.

Building Strengths, Creating Hope

S	Supervision Structure	<ul style="list-style-type: none">– close supervision to keep students safe and prevent problems– teach students that every day has a consistent structure to it– routines are explicit, firmly in place and followed– each class and every learning activity is planned and structured– use task analysis to ensure that all steps required to complete an assignment are given and understood– directions are simple, and given orally and in visual form
	Simplicity	<ul style="list-style-type: none">– keep everything simple—rules, routines, directions, language, explanations and expectations
	Support	<ul style="list-style-type: none">– provide unconditional emotional support to the student– ensure support for students' families and teachers as necessary to deal with emotional issues such as grief, loss and frustration
	Success	<ul style="list-style-type: none">– identify students' strengths and help students recognize and use their own strengths– develop IPPs with short-term objectives that ensure frequent success– look for positive events, set up situations to ensure accomplishments and celebrate success
C	Communication	<ul style="list-style-type: none">– takes place between the home and school regularly– everyone involved with these students knows what others are doing to help and communicates when there are changes in plans– teach students how to communicate feelings and needs
	Consistency	<ul style="list-style-type: none">– routines, rules and expectations are consistent– give steps to complete a task in the same way every time
O	Organization	<ul style="list-style-type: none">– teach organization skills in the classroom– the classroom is organized—a place for everything and everything in its place– learning activities and daily routines are organized
R	Rules	<ul style="list-style-type: none">– simple and easy to follow– concrete—“Don’t hit” rather than abstract “Be safe”– all staff use the same words for each rule– check whether students know and understand what the rules mean– if a student does not follow a rule, an adult corrects the behaviour immediately, without scolding and encourages the student to try the behaviour again, this time following the rule
E	Expectations	<ul style="list-style-type: none">– realistic, attainable and easily understood– take into consideration special and individual needs of students– for life and social skills as well as academics– clearly specify what is to be expected and accomplished for any given task or activity
S	Self-worth	<ul style="list-style-type: none">– students feel accepted, valued and safe– give positive encouragement each day– build on students' strengths to help them cope with the frustration of things they cannot do

Building Strengths, Creating Hope

Chapter 4: Creating a positive classroom climate

This chapter offers suggestions for creating a positive classroom climate and maintaining a supportive learning environment for students with FASD. Key concepts to support emotional and behavioural growth include the following.

- Consider the neurological basis of behaviours.
- Manage the environment to avoid behaviour problems.
- Use language and nonverbal communication that students understand.
- Focus on building positive relationships.
- Modify students' challenging, negative behaviours.

Consider the neurological basis of behaviours

It is critical to understand the neurological basis of the many behavioural difficulties of students with FASD. While many act in ways that could be considered erratic and irresponsible, their behavioural difficulties may be due to memory problems, an inability to problem solve effectively or the tendency to become overwhelmed with stimulation—all factors related to neurological damage associated with prenatal alcohol exposure.

Teachers are more likely to interpret student behaviour accurately if they understand that the behaviour of students with FASD is not necessarily willful noncompliance. The following chart lists selected behaviours, possible misinterpretations of those behaviours and more accurate interpretations of those behaviours for students with FASD.

Building Strengths, Creating Hope

Common Misinterpretations of Typical Responses in Students with FASD⁵⁶

Behaviour	Misinterpretation	Accurate Interpretation
noncompliance	<ul style="list-style-type: none"> ▪ willful misconduct ▪ attention seeking ▪ stubborn 	<ul style="list-style-type: none"> ▪ difficulty translating verbal directions into action ▪ doesn't understand
repeatedly making the same mistakes	<ul style="list-style-type: none"> ▪ willful misconduct ▪ manipulative 	<ul style="list-style-type: none"> ▪ can't link cause to effect ▪ can't see similarities ▪ difficulty generalizing
not sitting still	<ul style="list-style-type: none"> ▪ seeking attention ▪ bothering others ▪ willful misconduct 	<ul style="list-style-type: none"> ▪ neurologically-based need to move constantly, even during quiet activities ▪ sensory overload
doesn't work independently	<ul style="list-style-type: none"> ▪ willful misconduct ▪ poor parenting 	<ul style="list-style-type: none"> ▪ chronic memory problems ▪ can't translate verbal directions into action
does not complete homework	<ul style="list-style-type: none"> ▪ irresponsible ▪ lazy ▪ unsupportive parent 	<ul style="list-style-type: none"> ▪ memory difficulties ▪ unable to transfer what is learned in class to the homework assignment
often late	<ul style="list-style-type: none"> ▪ lazy, slow ▪ poor parenting ▪ willful misconduct 	<ul style="list-style-type: none"> ▪ can't understand the abstract concept of time ▪ needs assistance organizing
poor social judgement	<ul style="list-style-type: none"> ▪ poor parenting ▪ willful misconduct ▪ abused child 	<ul style="list-style-type: none"> ▪ not able to interpret social cues ▪ doesn't know what to do
overly physical	<ul style="list-style-type: none"> ▪ willful misconduct ▪ deviancy 	<ul style="list-style-type: none"> ▪ hyper or hyposensitive to touch ▪ doesn't understand social cues regarding boundaries
stealing	<ul style="list-style-type: none"> ▪ deliberate dishonesty ▪ lack of conscience 	<ul style="list-style-type: none"> ▪ doesn't understand concept of ownership over time and space ▪ immature thinking ("finders keepers")
lying	<ul style="list-style-type: none"> ▪ deliberate ▪ sociopathic behaviour ▪ lack of conscience 	<ul style="list-style-type: none"> ▪ problems with memory and/or sequencing ▪ unable to accurately recall events ▪ trying to please by telling you what they think you want to hear

56. Adapted with permission from Debra Evensen, MA, "Common Misinterpretations of Normal Responses In Children/Adolescents/Adults with FAS and FAE," © 1994–2002, www.fasalaska.com/interprets.html (Accessed 2002). Adaptation reproduced from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 116.

Three typical behaviours are especially confusing and frustrating in the classroom:

- lack of cause-and-effect reasoning
- lying
- stealing.

Lack of cause-and-effect reasoning

Students with FASD often have difficulty connecting cause and effect, and changing behaviour as a result of consequences used in typical behaviour modification systems.⁵⁷

There are a number of reasons why these students have problems perceiving consequences. First, their behaviour is often impulsive—many children with FASD simply do not think about the possibility of consequences or the implications of their actions.⁵⁷

Second, consequences are not always linked to behaviours. “If you throw a snowball, somebody might get hurt.” “Do not run out in traffic because you might get hit.” There are many times, fortunately, when dangerous behaviours do not result in consequences, or at least natural consequences. Nobody gets hurt. The child runs into the street and does not get hit. At times, it seems that it is not enough to warn children with FASD about what might happen; they need to experiment and find out for themselves. This can lead to serious outcomes.⁵⁷

Third, situations are never exactly the same. Students with FASD often have rigid thinking and may not generalize behaviour in one setting to the same or similar behaviour in another setting. Sometimes, such students generalize too well—instead of remembering the rule, they remember the one-time-only exception to the rule.⁵⁷

This does not mean that imposing consequences is useless, but parents and teachers may need to make extra efforts to apply consequences consistently and immediately. Using clear, concrete language, frequently and patiently remind students of the reasons for consequences.⁵⁷

Deb Evensen, an experienced educator and consultant for students with FASD, suggests caution when using behaviour modification systems because they rely on students implicitly understanding cause and effect. She points out that even young adolescents may not link the idea of working for points with completing tasks. She suggests structuring situations to induce desired student behaviours. She also suggests immediately linking natural rewards and consequences to targeted behaviours. Using a token economy, points or rewards given in the future may not be effective.⁵⁸

Lying

Lying needs to be understood within the context of the neurological impairment of students with FASD. These students may have language difficulties, memory deficits, immature social skills and anxiety that underlie their fabrications. They may not understand what it means to lie. In some cases, they are functioning at a much younger developmental level and have difficulty understanding abstract concepts, such as “truth” or “accuracy.” Some students say the first thing that comes into their heads when asked

57. Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Vancouver, BC: British Columbia Ministry of Education, Skills and Training, 1996), p. 23. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

58. Debra Evensen, personal communication with author, July 2001.

questions. This is an impulsive response related to how students process information and plan verbal responses. In some situations, students may be so eager for social acceptance or so anxious about a situation that they say what they think others want to hear in order to please them.

When students with FASD are asked questions, they may misunderstand or misinterpret them and give unrelated or partial answers because of language difficulties. At other times, students may attempt to fill in information they cannot remember. They may confabulate or tell stories that leave out information, put information in the wrong sequence or confuse the details of real events with other experiences or television programs. As Conry and Fast state in their book, *FAS and the Criminal Justice System*, “It is not lying, because there is no intention to deceive.”⁵⁹

Samples of specific strategies

- ▷ Directly teach the concepts of true and false, real and imaginary, and fiction and nonfiction. Often, parents of children with FASD report their children do not spontaneously engage in pretend play. If they do not pretend, it makes it difficult to distinguish pretend from true and real.
- ▷ Directly teach younger students what pretending involves. Use costumes and props to demonstrate taking on other roles, such as pretending to be a police officer, superhero or animal. Use these situations to discuss the difference between pretending and lying.
- ▷ Discuss what is unreal, fictional or fantasy on television or videos. Discuss how seeing or reading something is not the same as directly experiencing it.
- ▷ Help students distinguish story telling from lying by providing them with positive opportunities to tell stories. When you suspect students may be story telling, ask them a simple question, “truth or story?” This cues students to stop and think, and get back to the truth.
- ▷ Build on the strengths and story telling abilities of individual students. Provide opportunities to record stories into a tape recorder or tell stories to younger children. Clearly explain that these are stories, not true occurrences.
- ▷ When students clearly understand the concept of true and false, start rewarding truth telling.
- ▷ Avoid asking rhetorical questions that cause students to feel trapped or anxious. When students feel anxious, they may instinctively say what they think the adult wants to hear.

Stealing

Brain damage may make it difficult for students with FASD to understand the concept of personal ownership of property that is a prerequisite for understanding why stealing is wrong. If a person does not appreciate what personal ownership means, he or she cannot understand that taking another's possessions is stealing. Often it takes many years of direct instruction for students to understand the abstract concept of rightful ownership. Like young children, students with FASD may believe that if a person is holding an object, that object belongs to that individual. However, it may be difficult for them to see that an object left on a table has a particular owner. They often act impulsively and take things they need or want.

59. Conry and Fast 2000, p. 22.

Vicky McKinney, an FASD parent advocate, has an adopted adolescent daughter with FASD whom she describes as a “collective gatherer,” who randomly gathers up everything she is attracted to in the house. As a way to deal with this problem behaviour, family members go through the daughter’s purse and bedroom every day, and return gathered items to their rightful owners.⁶⁰

Susan Doctor, a special educator and trainer, shares the story of a student who repeatedly took items from the classroom. The school team developed a plan and asked parents for permission to search the student’s locker and backpack once or twice a day. They returned these items in a low-key manner without punishment. Other students were encouraged to use positive ways to remind the student with FASD not to take their things.⁶¹

Students with FASD may eventually understand that they should not take items from people at school, but often do not generalize this rule to the community. Typically, the environment needs to be structured so individuals with FASD are monitored to reduce opportunities for stealing.

Samples of specific strategies

- ▷ Teach the concept of personal space and ownership. Write students’ names on items or colour code students’ property.
- ▷ Teach students the association between specific items and their owners. Students can practise by picking up labelled objects from a central location and delivering them to their owners.
- ▷ Teach students how to politely ask if they can borrow something from another person. Model how to give the item back and thank the owner for use of the item.
- ▷ Establish and implement appropriate consequences for taking others’ items.
- ▷ For older students, use restitution or restitution plus community service as a consequence for stealing.
- ▷ Encourage students to apologize to people they have taken things from, in person or in writing.
- ▷ Provide ongoing, professional counselling and support to deal with deeper, underlying security issues that result in stealing and hoarding, when necessary.

Manage the environment to avoid behaviour problems

Teachers need ways to create a classroom environment that is physically and psychologically safe for all students. As a group, students with FASD benefit from structure and routine, and a predictable environment where their comfort and competence levels can grow. If an environment meets students’ needs for structure and support, many behavioural problems can be prevented. As Weir states, “Managing behaviour is about predicting and preventing an unwanted behaviour before it happens—not always possible but a more effective place to put our energy than always being reactive.”⁶²

60. Vicky McKinney, personal communication with author, 2000.

61. Susan Doctor, personal communication with author, February 2003.

62. Weir 1999.



Manage the environment to avoid social problems.

- Plan the daily schedule so students have appropriate levels of social support. Some situations, such as unstructured time on the playground or the availability of illegal drugs from peers, present obvious challenges. However, even crowded school hallways and noisy lunchrooms may be too stimulating, and lead to problems for students with neurological impairments.
- Try to predict and plan for situations that can be confusing to students.
- Work with students to develop a plan for what to do when they feel overwhelmed by people, sound, light or movement. Include strategies, such as moving to a quiet place in the classroom, going for a drink of water or asking to take a short walk around the school building.
- Help others have realistic and fair expectations. Unrealistic expectations can lead to misunderstandings. It is important for peers, family members, teachers and employers to understand that in some situations the student “can’t” rather than “won’t.”⁶³



Structure the environment to accommodate active behaviours.

Samples of specific strategies

- ▷ Note students' activity levels throughout the day and in a variety of activities and learning settings. Use this information to plan the schedule and learning activities.
- ▷ Provide additional opportunities for movement if students are especially active. For example, ask them to deliver a message to the office when fidgety.
- ▷ Seat students with FASD next to appropriate role models, such as students who are less active and demonstrate good work habits.
- ▷ Stand near students when speaking or presenting instructions.
- ▷ If the classroom has tables rather than desks, seat students with FASD at the end. Ensure there is enough space between students so they are unable to physically bother one another.
- ▷ Seat students in quiet locations away from pencil sharpeners, cupboards, windows, colourful displays and other materials that might be distracting.
- ▷ Limit the number of students moving at any time. For example, send young students in small groups to get materials or into crowded areas, such as coatrooms.

63. Malbin 1999.

- ▷ Plan movement breaks in the day.
 - Schedule frequent, regular breaks and give a short break when it looks like students need time to move.
 - Alternate activities requiring movement with those that are calmer.
 - When changing activities, allow for a calming time in between.
 - Offer a variety of rewards or reinforcers that provide opportunities for movement, such as coupons for free trips to the water fountain or pencil sharpener.
 - Limit how long students spend on each activity, e.g., less than 15 minutes per activity for younger students and 30 minutes for older students.
- ▷ Ignore fidgeting or movement that does not interfere with learning.



Ensure smooth transitions from one activity to the next to reduce behaviour problems.

Students with FASD benefit from settings that maintain continuity and reliability through routines and rituals. Scheduling activities to occur in a predictable order strengthens students' self-control and sense of mastery over the environment. Moving from one activity to the next can cause anxiety and behavioural disruptions for these students. There can be as many as 50 transitions in a school day so it is important that students develop skills and strategies to handle transitions.

Transition times must be seen as activities in and of themselves, with a beginning, a middle and an end. Unstructured time in a classroom is an opportunity for disruptive behaviour. Keep the time required for transitions to a minimum and carefully plan each transition.

Samples of specific strategies

- ▷ Alert students a few minutes before an activity is over.
- ▷ Prepare students for change by talking about the next activity before it begins.
- ▷ Provide opportunities for students to physically end an activity before beginning the next, such as putting a picture or article representing the activity away, or turning a picture over before going on to the next activity.
- ▷ Create cues that signal transitions. For example,
 - use a kitchen timer or other visual cues in addition to verbal reminders that an activity is going to end
 - turn off classroom lights or use a music cue to signal time to move
 - create a special transition song for children to sing during transition.

Building Strengths, Creating Hope

- ▷ Place a visual reminder of the next activity or location on students' desks.



- ▷ Assist nonreaders by using daily schedules with pictures. Refer to them as activities change.

Daily Schedule: Tuesday morning		
	9:00	Silent reading 
	9:15	News 
	9:30	Reading groups 
	10:15	Recess 
	10:30	Math 
	11:30	Lunch 

- ▷ Increase monitoring of students during transition times.
- ▷ Praise and recognize students who make transitions quickly and cooperatively.
- ▷ Organize materials and have them readily available as each new activity begins.
- ▷ Ask students who have major difficulty with transitions to carry something important or hold the teacher's hand.



Establish clear rules.

Rules clearly define what is and is not acceptable in the classroom, in the school and on school grounds.

Samples of specific strategies

- ▷ Focus on rules that are essential to smooth classroom operations.
- ▷ Make rules before, not after the fact, so students know what to expect.
- ▷ Post rules so students can refer to them frequently and rehearse regularly. Use graphics to illustrate each rule.
- ▷ Use guided observations to teach understanding of rules. Guided observations involve directing a student to carefully watch another student who is following a rule successfully. This allows students to attend and focus on the critical dimensions of a positive behaviour.
- ▷ Remind students of rules at key times and in a variety of contexts throughout the day.
- ▷ Use role-play and other strategies to practise rules.
- ▷ Acknowledge and reinforce students' positive behaviour when the rules are followed appropriately.

Use language and nonverbal communication students understand

Students with FASD often have language difficulties that may not be obvious. They may not have articulation difficulties, and their expressive language often superficially seems adequate. However, they may have limited understanding because of receptive language deficits and social communication weaknesses. These students often speak better than their level of understanding. They may say a lot of words without really communicating meaning. Teachers need to carefully consider the language used in instruction and discipline.



Use specific and concrete words to describe behaviour.

Samples of specific strategies

- ▷ Use concrete words in rules, whenever possible.

- ▷ Explain abstract words with actions and role-plays. The following words may be abstract to students with FASD and may need explicit instruction:⁶⁴

wait	be responsible	join
get started	clean up	choose
ask for help	watch.	

- ▷ Use rules that are specific enough for most elementary students, such as:
 - put your worksheet on my desk
 - do not bump or touch other students.



Consider the phrasing of directions and corrections.

Samples of specific strategies

- ▷ When students misbehave, explain why that behaviour is inappropriate a maximum of two times. Do not repeat requests or try to reason with them. Students may “shut down” with too much talk.
- ▷ Avoid using rhetorical questions when making requests. Use statements, such as “Please start your work,” instead of “Can you get started on your work?”



Consider the nonverbal aspects of communication.

Samples of specific strategies

- ▷ Ensure students are paying attention before giving directions and instructing.
- ▷ When making a request, stand or sit near students.
- ▷ Use a quiet, calm voice.
- ▷ Ensure students have sufficient processing time to follow through with requests or answer questions. Students with processing difficulties often need several seconds to a minute to process information. Repeating a request during this time interval interrupts the original processing time.
- ▷ Avoid asking questions when the answer does not solve a problem. For example, if two students are involved in a fight on the playground and fighting is against school rules, little will be accomplished by trying to ascertain who did what to whom first.
- ▷ Use verbal and nonverbal positive feedback regularly. In order for students to feel positive about their learning environment, a ratio of at least four positive interactions to every negative consequence is necessary.⁶⁵

64. Doctor 1994.

65. Fredericks et al. 1977.



Use visual cues to enhance communication.

Samples of specific strategies

- ▷ Use timers, buzzers and stop watches to show students physical, concrete ways to measure time.
- ▷ Provide students with simple charts or checklists of steps to be completed and a space to check steps as they are completed.



- ▷ Use visual indicators of positive feedback, such as smiles, thumbs-up signals, stickers or stars, tailored to individual students.

Focus on building positive relationships



Enhance the teacher-student relationship.

The teacher-student relationship forms the basis for student learning and students' enjoyment of school. Whenever possible, there should be a strong relationship with at least one teacher in a student's environment. A special teacher can often act as an emotional support and a potent reinforcer to help students through behavioural challenges.

Many students with FASD are eager to please their teachers. They strive to do what they are asked, but often misunderstand or are incapable of the work expected. If teachers note where the problems are, make necessary changes, and support and guide students to do their best work, successful learning often occurs. If instructional levels and tasks are beyond students' current levels of performance, classroom teachers can provide modified tasks. Have appropriate, positive expectations that students will make gains and learning will take time.

Building Strengths, Creating Hope

Maintain positive and supportive relationships with students. When encountering behavioural difficulties, remember that the behaviours are the source of frustration, not the students. It is critical to remember the organic cause of the disability, and continue to concentrate on how to help students acquire appropriate skills for coping.

Focus on the positive accomplishments of students and be willing to remind, guide and supervise them on a daily basis. Progress may be uneven. Some students continue to live and grow within unsettled home environments, however they will learn and improve with teaching and support. Forgiveness, humour, caring and the willingness to be flexible will help teachers start each day anew to create a learning environment that meets these students' needs and enhances their self-esteem.



Understand that students use behaviours to communicate.

Students often express their feelings more effectively through their behaviours than their words. Think about the message behind a specific behaviour. Donna M. Burgess, a researcher, professor and special educator, says teachers should look for communicative intent of challenging behaviours.⁶⁶ For example, a teacher may hypothesize that a student is not completing tasks because he or she feels the work is too difficult. The teacher can communicate the hypothesis by suggesting something like, "Your behaviour tells me that maybe you find the work too hard. Does it feel like it's too hard? Do we need to find some ways that would make this work easier for you?"

Samples of specific strategies

- ▷ Teach students to communicate in an acceptable manner, such as raising a hand to request help. Reinforcing these attempts lets students know that their communication has meaning and is understood.



- ▷ Model and teach alternative, appropriate forms of communication to replace outbursts or shutdowns.

66. Burgess and Streissguth 1992.

- ▷ Create an environment where students feel safe to express feelings, wants and needs.
- ▷ Establish a positive climate for asking for assistance, asking questions or asking for repetition.
- ▷ Investigate students' behaviours by asking questions to discover what they need, want or fear.
- ▷ Encourage students to ask questions when confused and praise them for taking the initiative to request information if they don't understand.
- ▷ Respond to specific needs of students with predictability and regularity.

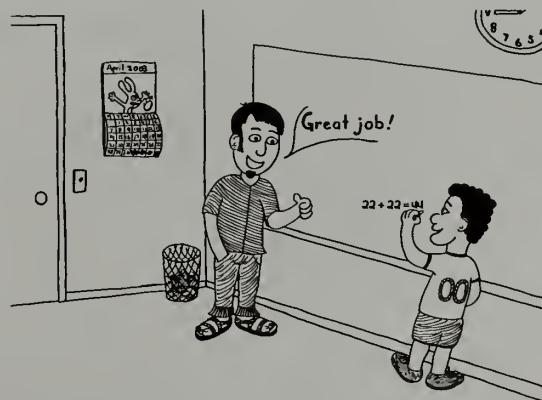


Use language, approaches and interactions that enhance students' self-confidence and self-worth.

Many students with FASD, in spite of their best efforts as well as those of their teachers, struggle with the academic curriculum, social relationships and issues of self-management. Emphasize students' special talents, and find tasks and activities that nurture their self-confidence and enhance their self-worth.

Samples of specific strategies

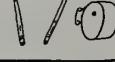
- ▷ Students need help understanding that although their behaviour may need to change, they are not "bad people."
- ▷ Use body language and smiles to show students that you like them.⁶⁷
- ▷ Make a point of saying something positive to each student several times a day.⁶⁷
- ▷ Look for each student's individual strengths and refer to them whenever you can. "You're really good at drawing so you will probably like this project."⁶⁷
- ▷ Reinforce students' roles in successes. For example, say, "Good job. You really worked hard on that."



67. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: Vancouver School Board, 1999), pp. 108–109.

Building Strengths, Creating Hope

- ▷ Plan activities that highlight individual strengths, talents and hobbies.
- ▷ Set realistic and attainable goals for each student so school is a positive place to be.⁶⁷
- ▷ Design learning activities with students with special needs in mind. This may require modified expectations, small steps, much praise and encouragement, and an appreciation of the many small gains.⁶⁷
- ▷ Less can be better. Reducing the amount of work required is more positive than assigning a greater volume of work that will be left incomplete or finished long after everyone else.⁶⁷
- ▷ During cooperative learning activities, partner students carefully and assign tasks that can be accomplished by each member of the team. Set students up for success.⁶⁷
- ▷ Try to partner students with FASD with students who are patient and good role models.⁶⁷
- ▷ Give all students opportunities to help around the school, such as reading simple stories to primary students, delivering messages to the office or looking after class pets.⁶⁷

Helpers	
○ Conrad	Reading baskets 
○ Wai-Ling	Water plants 
○ Robyn	Sharpen pencils 
○ Levi	Calendar person 
○ Kimmy	Feed fish 

- ▷ Help students increase their use of positive self-talk by practising positive affirmations. “I am becoming a good reader. I read a page with no errors.”
- ▷ Be aware of situations that cause stress for individual students.
- ▷ Be consistent when enforcing rules and expectations. Give credit for approximations.



Help students learn how their own efforts contribute to success.

Students need to experience success. They need to stick with tasks and finish them in order to realize the role of effort. They need to learn what it feels like to make a personal investment in completing tasks. Self-confidence and self-worth come from positive experiences.

Samples of specific strategies

- ▷ Reinforce students' roles in successes. Say, "You did well. You must have studied last night," or "Good job. You really worked hard on that."⁶⁸
- ▷ Ask students why they think they did well on a test or assignment. Encourage them to relate their success to their own efforts, skills or abilities.⁶⁸
- ▷ Have students repeat tasks they have completed successfully or complete similar tasks to ensure they understand that they are responsible for their achievements.⁶⁸
- ▷ Help students monitor how many minutes they persevere on a task. As they increase their determination, they will increase their success.
- ▷ Use stories and concrete examples to demonstrate the relationship between effort and achievement.
- ▷ Encourage students to use self-talk to reframe their beliefs about their own abilities. Model positive self-talk.



67. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: Vancouver School Board, 1999), pp. 108–109.
68. From Special Programs Branch, Alberta Learning, *Teaching Students with Learning Disabilities* (Edmonton, AB: Alberta Learning, 1996), p. 202.



Provide choice in projects and strategies to gain student cooperation.

Sample of specific strategy

- ▷ Actively involve students in the selection of strategies, once they have tried several under teacher direction. The more actively students are involved, the more aware they become of what works for them.



Help students understand their own learning strengths and needs.

Sample of specific strategies

- ▷ Talk with students about their particular strengths and needs.
- ▷ Provide specific feedback that helps students understand how they learn best. For example, “You seem to remember better when you get a chance to see the information.”
- ▷ Help students learn to think about and describe their thinking. “Talk aloud,” describing your own thinking and encourage students to “talk aloud” about their thinking. Rephrase their ideas to highlight their learning strengths and needs.
- ▷ Explain assessment results so that students understand their abilities, needs, and the implications for schooling and life. Explanations will vary depending on the age and functioning levels of students. With elementary students, be specific and concrete. With older students, more information can be conveyed. Use visuals, e.g., graphs and pictures, and ask students to paraphrase what you say.
- ▷ Provide parents with suggestions for explaining FASD to their children in ways that reinforce their children’s strengths. See Explaining FASD to Your Child, Appendix A8, pages 120–121.



Move toward greater self-management of behaviour.

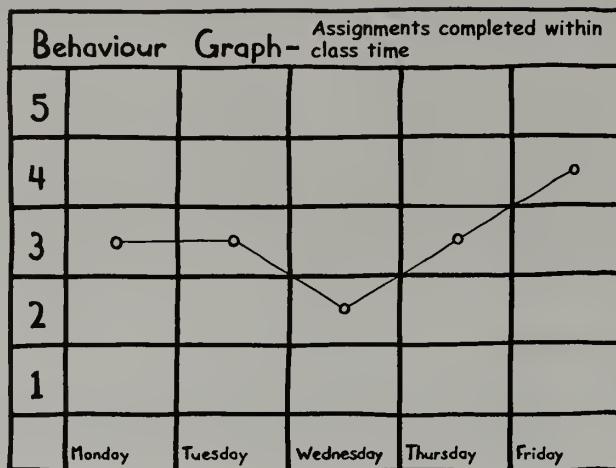
The overarching goal of behavioural intervention strategies is to help students develop self-management skills. Students need to understand and be aware of their difficulties before they can begin to manage their behaviours. For some students with FASD, this is an ongoing challenge throughout life and complete self-management is not a realistic goal. Other students develop personal management in selected domains of their lives. Teachers need to provide ongoing structuring and support, and be encouraged when they see signs of self-management.

Samples of specific strategies

- ▷ Encourage students to list their strengths and needs, and talk about how to use their strengths and compensate for their weaknesses.
- ▷ Use self-assessment tools, such as the Learning Challenges Inventory, Appendix A9, pages 122–123, to identify areas of need and set goals for improving specific behaviours.
- ▷ Offer feedback when students are attending, calm and relaxed.
- ▷ Provide feedback in concrete, specific language.
- ▷ Demonstrate and replay incidents instead of talking about them, if helpful.
- ▷ Help students interpret the nonverbal cues of peers by role-playing interactions.
- ▷ Prepare and practise for potentially challenging situations.
- ▷ Rehearse needed behaviours immediately before new or challenging situations.
- ▷ Model, discuss, demonstrate, rehearse and evaluate a variety of problem-solving strategies.
- ▷ Emphasize how effort contributes to the solution of problems.
- ▷ Work with students to explore the effects of various strategies.
- ▷ Encourage students to keep a book of coping strategies that work for them.

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- Work with students to record and graph one or two behaviours that they want to modify. Use the graph to show changes.



- Provide recorded, taped messages to support positive behaviours. For example, an adult voice can be recorded with positive statements and friendly reminders, such as “Good work” or “Check your answers.”
- Model and demonstrate the use of self-talk to guide behaviours.
- Use role-play and play situations as opportunities for students to practise self-talk.
- Help students internalize self-talk strategies by teaching key phrases to focus attention, resist distractions, manage frustration, self-reinforce with positive affirmations, anticipate consequences, relax and appreciate the feelings of others.
- Use timers to help students monitor time on task. Increased awareness may eventually lead students to initiate strategies without external reminders.
- Take a baseline measure of students’ independent work duration. Make a contract with students to increase work intervals by small increments.
- Write key behavioural goals on desk cards as nonverbal reminders, such as “Raise your hand before speaking.”



- ▷ Use pictures to help younger students remember good behaviours and cue them to self-monitor such behaviours. For example, provide students with pictures of themselves sitting quietly and attending during a story or circle activity.
- ▷ Videotape students going through the classroom routines, practising strategies and working in cooperative groups appropriately. Show students the video.

Modify students' challenging, negative behaviours

Despite teachers' best efforts at providing routine, structure and understanding, some students continue to demonstrate challenging behaviours that are detrimental to themselves and others. These students may need a modified behavioural approach.

Work as a team

A supportive team approach can help classroom teachers deal with students' behavioural challenges. Collaborative planning ensures clear understanding by all those involved. The team may include administrators, special educators, school psychologists, speech pathologists, occupational therapists, counsellors, teacher assistants and social workers. Establishing behavioural priorities helps teams focus on what is most critical for students to learn.

Involve parents

Actively involve parents when establishing behavioural goals. Establish clear, open lines of communication so parents will inform the school if there are upsets in the home, family emergencies or changes in students' routines, such as sleeping patterns. These may cause sudden changes in behaviours. Students function best when consistent strategies are used at both home and school.

Use comprehensive observations

Observing student behaviour in natural settings is key to gathering information for effective programming. Comprehensive observations in the context of natural routines are essential to determine how students behave in a variety of settings, such as at play, at transition times and while engaging in self-help activities. Close observation indicates how they experience stress, relieve tension, cope with obstacles and react to change. These observations provide essential information for setting realistic goals. Observing students in all the environments they experience helps teams plan interventions.⁶⁹



Develop a plan for changing challenging behaviours.

Some students with persistent challenging behaviours need formal behavioural plans. When organizing such plans, consider using the resources of a student support team. Once the team selects and defines a particular target behaviour, develop a behavioural intervention plan.

By developing clear procedures and guidelines for intervention, the likelihood of successful intervention increases. In the initial planning stages, select a single behaviour to target.

69. Hartness 2000.

Building Strengths, Creating Hope

Once the target behaviour is selected, the team needs to determine what purpose the inappropriate behaviour is currently serving, and what factors might be reinforcing and maintaining the behaviour. Use comprehensive observations to record occurrences of the behaviour, the cues and consequences surrounding the behaviour, and the particular settings in which it occurs. Data collection charts are helpful and assist with record keeping.

Data can then be analyzed to determine the frequency of occurrence, the factors seemingly precipitating the behaviour, its nature, the time of occurrences and the consequences. Once the apparent situational factors surrounding the behaviour are established, the next step involves identifying environmental factors that can be altered to positively influence the behaviour. For instance, altering the controlling cues for the behaviour, or teaching the student an alternate behaviour or strategy can result in positive changes.

For an intervention plan to be successful, clear expectations for appropriate behaviour must be communicated to students. Students need concrete, regular, ongoing feedback about their behaviours. Intervention plans should be monitored on a regular basis and modified as needed. Behavioural modification, especially with token economy systems and delayed rewards, are often not effective with students with FASD. Because of their neurological damage, these students may not be able to link their behaviour with the rewards.

Samples of specific strategies

- ▷ Model and teach appropriate behaviours.
- ▷ Use specific concrete behavioural descriptors when explaining behaviours students need to increase or decrease.
- ▷ Be prepared to teach the same concept many times over.
- ▷ When the opportunity arises, use natural situations as teaching opportunities.
- ▷ Plan for generalization across situations. If necessary, be prepared to re-teach behaviours in new settings and situations.
- ▷ Use concrete, tangible reinforcers as soon after desired behaviours as possible.
- ▷ Be aware of symptoms of student stress, such as irritability, agitation and overreactions to minor occurrences.



Use positive reinforcements.

When designing behavioural programs, the goal is for students to learn and have successful experiences. Many students with FASD do not link behaviours with rewards. However, a systemic approach can be helpful. It offers a structure for observing and analyzing students' interaction patterns, and provides information to help make changes that promote good behaviour.

Many students with FASD become accustomed to failing and the attention they receive from failing. It is critical for them to experience being successful. Initially, students may need to receive reinforcement for incremental steps toward goals. Effective reinforcement or feedback should be immediate and follow the demonstration of appropriate behaviours, the use of routines or successfully following instructions. Positive feedback can lead to improved behaviour. It needs to occur more frequently than negative feedback. Positive feedback does not always have to be verbal—it can also include physical prompts, such as smiles, handshakes, nods and eye contact. Reinforce approximations and small improvements in appropriate behaviours. Gradually shift the emphasis from extrinsic rewards, such as concrete tokens, to positive social praise. The end goal is that students will be able to express their own feelings of happiness at their successes.

Samples of specific strategies

- ▷ Enlist the help of students, families and peers in generating a list of social, activity-oriented and tangible reinforcers.
- ▷ Consistently recognize and encourage students' efforts, and praise accomplishments.
- ▷ Deliver reinforcers immediately, consistently and specifically.
- ▷ Develop a variety of reinforcers and change them often so they remain rewarding.



Work with counsellors and behaviour consultants who are knowledgeable about FASD.

Counselling approaches that work with this population are often different than typical talk therapy approaches. Parents and school staff can benefit from working with trained behavioural consultants who have knowledge of students with FASD, their issues and strategies to improve negative behaviours.

Generally, concrete, literal techniques work best with students with FASD. Insight and talk therapy are of limited help. However, Susan Baxter, a psychologist in Alaska, has written about her success with modified talk therapy in *Fantastic Antone Grows Up*. Her success relies on building trusting relationships and using concrete ways, such as photos and role-plays, to demonstrate concepts.⁷⁰

70. Baxter 2000.

Building Strengths, Creating Hope





Chapter 5: Responding to students' needs

Students with FASD can have difficulties in a wide range of areas of functioning. Many of these difficulties are linked to prenatal alcohol exposure.

The eight domains of functioning discussed in this chapter include:

- sensory processing
- motor skills
- behavioural regulation
- adaptive behaviours and social skills
- attention
- memory
- language and communication
- academic skills.

This section includes definitions for each domain of functioning, examples of behaviours in each domain, and sample programming and intervention strategies. The strategies are helpful in writing IPPs and sharing ideas with parents.⁷¹

Sensory processing

Sensory processing involves the brain's ability to efficiently process and organize information. A term often used for this is "sensory integration." Sensory information or stimuli come to individuals through their sensory systems: vision, hearing, smell, taste and touch, as well as vestibular (movement) and proprioception (sensations from muscles and joints). Sensory processing involves the coordination and interpretation of information from separate sensory systems to guide individuals' behaviours and functioning. Sensory processing underpins the ability to manage automatic behaviours, such as attending, maintaining posture or ignoring background noises. It also guides responses to novel stimuli and changes in the environment.

Examples of good sensory processing:

- A student copies from the board using his visual system to read the words, and his proprioceptive system to know where his hand is in space and how tightly to grasp the pencil. Appropriate sensory processing allows him to maintain attention and disregard background noise while forming letters on the page.
- A student uses her auditory system to attend to the teacher's instruction and her visual system to follow points listed on an overhead. The student is not visually distracted by artwork on the wall, auditorily distracted by sounds from the hallway or bothered by the feel of her clothing, but follows the discussion and understands the information.

71. Clarren and Jirikowic 2000.

What sensory processing difficulties look like

Students who do not process sensory information adequately have a variety of functional or behavioural difficulties in a classroom. Students with FASD may experience sensory input differently than other students. They may not only have difficulty putting together sensory information from more than one sensory system, but may also have difficulty interpreting sensory input accurately.

Students experiencing difficulties with sensory processing may be oversensitive (hypersensitive) or undersensitive (hyposensitive).

Students who are oversensitive may be:

- startled or cover their ears at loud sounds
- overwhelmed at bright light
- bothered by certain smells or tastes
- sensitive when touched
- irritated by certain clothing or textures.

Students who are undersensitive may:

- demonstrate high pain tolerance
- seem unaware of events in the room
- seek sensory stimulation through fidgeting, feeling things, placing things in their mouths, chewing, making noises or rocking back and forth.

Examples of sensory processing difficulties:

- A student may not be able to distinguish between relevant and irrelevant sensory information. The student is visually distracted by artwork on the walls, auditorily distracted by the fan humming and still smells the popcorn that was in the microwave oven at lunch time. The student is not able to focus on his math, but offers the observation that the student next to him is using a pen instead of a pencil.
- A student doesn't respond with pain after his hand has been slammed in a locker door, which produces swelling and a significant scrape.
- A student has the need to fidget in her desk, play with toys and move in her seat in order to focus her attention on the teacher's lesson. At other times, she seeks oral input by chewing on her pencil or clothing.



Manage the environment to reduce sensory overload.

Samples of specific strategies

- ▷ Minimize loud noises, bright lights, the number of objects and materials in the workspace, and materials on the walls.
- ▷ Keep working groups small and accommodate students who need to work individually.

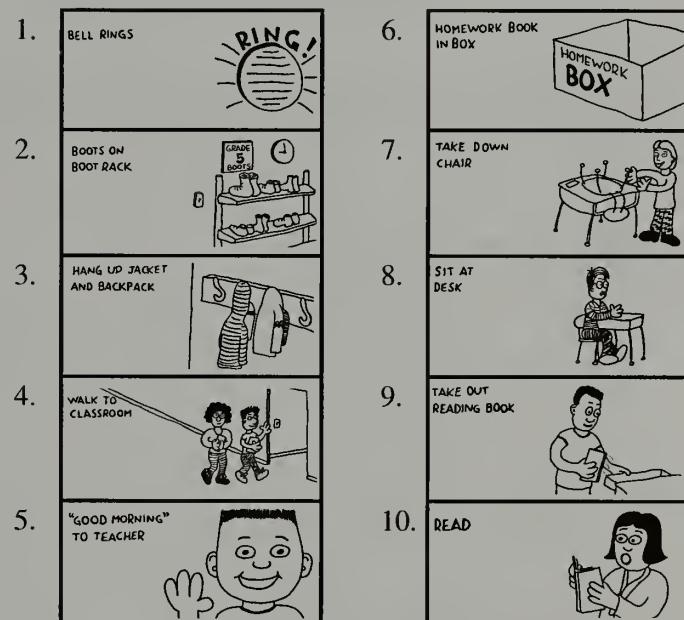
- ▷ Simplify visual stimulation by displaying few posters on the walls, and few objects on tables and counters. Keep overhead mobiles and dangling objects to a minimum.
- ▷ Give verbal instructions in an area with a plain background. A plain background reduces competing visual input so students are better able to concentrate on listening to instructions.
- ▷ Reduce tactile stimuli. Suggest that parents cut tags that may irritate the skin out of clothing. Suggest students wear sweatpants instead of jeans and turn socks inside out if the seams are irritating. Clothing made of softer fabrics are more comfortable for highly sensitive children.
- ▷ Provide headphones to screen out classroom noise.



Establish consistent, specific routines and procedures to increase students' comfort.

Samples of specific strategies

- ▷ Adapt environments and routines so students can avoid busy crowded places or situations they find overwhelming and stressful.
- ▷ Choose routines that minimize sensory overload. This includes routines for starting and ending the day, washroom use and quiet time.⁷²
- ▷ Write routines on chart paper using simple, concise, numbered steps and display them on the wall. Consistently follow and refer to them. Students with FASD need to know what is happening and when it is happening. This helps them be as calm and organized as they are able. Use visuals to illustrate steps wherever possible.⁷²
- ▷ Consider seating students with FASD in areas with reduced traffic flow, minimal displays on the wall and away from sources of noise.



72. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 77.

- ▷ Play music with a slow, steady, rhythmic beat during independent work times or transitions in the day. Music may be calming and soothing to students. Mozart and Bach are often good choices.
- ▷ Be attuned to students who are oversensitive to loud noises or crowds. Provide warnings for events such as fire drills.



Consider sensory needs as you plan for transitions from activity to activity and area to area.

Samples of specific strategies

- ▷ Closely monitor students for overstimulation during gym or assemblies. If necessary, provide accommodations or alternatives to these activities.
- ▷ Sensitive students might do better at the beginning or end of a line where there are fewer sensory distractions from other students.
- ▷ Plan for quieter activities to follow busier activities. For example, plan a quiet reading activity following lunch time.
- ▷ Allow students to remain after class “to help the teacher” and move to the next class after the majority of students have left the halls.



Provide opportunities throughout the day to help students meet their sensory input needs in appropriate ways.

Samples of specific strategies

- ▷ Allow movement breaks when needed. This includes delivering messages to the office, going to get a drink, going to the washroom or passing out papers in the classroom.
- ▷ Encourage students to stretch their arms and legs in their seats periodically throughout the school day.
- ▷ Provide small inflatable cushions to sit on. These allow students to get “the wiggles” out while sitting at their desks or on the floor.
- ▷ Allow students to hold fidget toys, such as soft squishy balls or small figures when seated at their desks or listening in a circle.
- ▷ Allow appropriate oral stimulation, such as sucking on hard candies, chewing on gum or drinking from water bottles with straws at their desks. If oral needs are strong, an occupational therapist might recommend specific chew toys or other strategies.



Clearly define personal spaces and boundaries, and provide areas that accommodate students' sensory needs.

Samples of specific strategies

- ▷ Use tape to create a circle on the floor to indicate where students should sit, or provide individual seats defined by carpet squares, cushions or tape marks, for group activities.



- ▷ Put coloured masking tape on the floor around students' desks to help them see where their space is in relation to others.
- ▷ Make defined lines on the floor for students to follow as they line up in the classroom.
- ▷ Provide study carrels or use partitions to create workspaces with fewer distractions for individual students.
- ▷ Provide a quiet space with blankets, beanbag chairs, a sleeping bag or cardboard box for down time. This designated space can function as a place for students to reorganize or calm down.
- ▷ Provide seating in the front row of the classroom for students with FASD so they can clearly see the teacher and be less aware of other students. Avoid seating them in the middle of groups. If possible, allow students to keep the same seat for the entire school year to develop a sense of stability.
- ▷ Set physical boundaries on the playground and encourage students to play within certain areas during recess. Select one peer buddy initially, and gradually add a few others and more activity options.

Motor skills

Fine motor skills involve the development and use of smaller muscles of the hands to manipulate objects and use tools with precision. Gross motor skills involve learning how to control and coordinate large muscle movements to walk, run and perform simple to complicated athletic activities. There may be some students who would benefit from a consultation and/or individual therapy with an occupational or physical therapist.

What motor skill difficulties look like

Students experiencing difficulties with gross motor skills may:

- fall frequently
- bump into people or objects
- dislike physical education classes
- have problems with games and ball skills
- appear uninterested in sports.

Students experiencing difficulties with fine motor skills may:

- have a hard time learning to write
- produce messy work with much erasing
- press hard enough to rip the paper when writing
- use too little pressure so that their written letters are illegible
- have trouble keeping written work on the lines, or spacing letters and words
- become tired and frustrated during written assignments
- have trouble using building blocks, stringing beads, cutting, pasting, completing craft activities
- have problems opening containers or packages
- have problems with self-help tasks, such as dressing.



Emphasize safety, participation and success during play, recess and physical education classes.

Samples of specific strategies

- ▷ For younger students, provide opportunities for playful exploration in gross motor and movement activities, such as soft climbing equipment, obstacle courses and riding toys.
- ▷ Use hula hoops, ribbon sticks, jump ropes and scooter boards to engage students in non-competitive movement activities.
- ▷ Allow students to work at their own rates to increase motor skills.
- ▷ Eliminate competition pressures.
- ▷ Reduce the confusion of following complex rules by simplifying games.
- ▷ Practise gross motor skills and sports activities that are important to individual students. If a student has athletic interest, provide instruction and opportunities to use the skill. If he or she cannot be successful in the regular athletic program, provide alternate roles or look for alternate opportunities, such as Special Olympics.

- ▷ Emphasize individual sports and fitness activities versus team sports. Students may enjoy and succeed at individual athletic activities, such as swimming, horseback riding, martial arts, running, bicycling, hiking, walking or bowling.
- ▷ A variety of activities can help students improve eye-hand coordination and prepare for games involving balls. These activities can occur during gym classes, therapy sessions, on the playground or at home. The following are preparatory ball skill activities.
 - Hit balloons with foam paddles. This activity slows down the action and provides additional response time.
 - Play a game of “hot potato” sitting in a circle. Pass a potato or large softball quickly around the circle while music is playing. The object of the game is to not drop the potato or be the person holding the potato when the music stops.
 - Practise ball skills with a large plastic bat and ball or with a batting tee and ball.
 - Toss bean bags into hoops or at targets.
 - Use darts with blunt ends to hit targets.
 - Play catching and rolling games using soft balls with textured exteriors that are easier to control.
 - Use Velcro paddles and fuzzy tennis balls.
 - Use a soft basketball and low basket to practise basketball skills.



Provide opportunities for developing fine motor skills.

Samples of specific strategies

- ▷ For hand strengthening and dexterity, have students model with clay, play card games, spin tops, roll dice in board games, and play marbles or pick-up sticks.
- ▷ Provide blocks, puzzles and drawing materials to help students practise and improve fine motor skills.

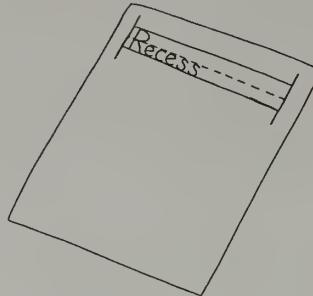


Adapt handwriting activities so students can successfully complete assignments.

Samples of specific strategies

- ▷ Provide a writing surface that adds additional visual structure, texture and space.
- ▷ Have students use wide-ruled paper or write on every other line.
- ▷ Use paper with raised lines, graph paper or draw arrows for directional cues to guide left-right and top-bottom spatial organization.

- >Create a template with a bolded top and bottom line, wide-spaced lines and clearly marked margins.



- Use adaptive aids, such as slant boards to hold paper securely and assist with hand position. Use pencil grips to modify grasp.
- Provide a model of what is to be written on students' desks.
- Reduce the length of the assignment or provide additional time to complete assignments.
- Scribe students' ideas or have two students work together with one student writing both students' ideas.



Develop computer skills and use assistive technology to compensate for handwriting difficulties.

Samples of specific strategies

- Make computers and portable word processors available in the classroom for written work.
- Allow students to type their answers on word processors.
- Teach students how to use word prediction software or word processors with auditory feedback.
- Teach keyboarding and computer skills early. Students are generally ready for keyboarding instruction by Grade 3. However, students with FASD may learn these skills more slowly and the fine motor difficulties that affect handwriting may also affect keyboarding skills.
- In order to reduce the handwriting or typing load, arrange to have some assignments completed orally by using a cassette recorder or giving oral reports.



Adapt daily living tasks that require fine motor dexterity.

Sample of a specific strategy

- ▷ Encourage parents to consider clothing with Velcro fasteners, and pullover and pull-on clothing whenever possible. Eliminate or delay the use of laces, buttons or zippers if they cause frustration. This helps students develop and maintain independence.

Behavioural regulation

Behavioural regulation is the age-appropriate ability to control one's activity level and modulate emotions in response to internal or external stimuli.

What difficulties with behavioural regulation look like

Students experiencing difficulties with behaviour regulation may:

- become extremely upset when required to change activities in the classroom
- shut down when there is too much noise or activity in the classroom
- display extreme emotional ups and downs
- have extended tantrums—shout, scream, kick and hit
- shut down when reprimanded.



Consult professionals who have experience with FASD or other neurological impairments.

Samples of specific strategies

- ▷ Consider psychiatric and psychopharmacological assessment and treatment. It can be helpful in understanding and providing interventions for many aspects of behavioural regulation. The neurochemical level of children with FASD may be unusual and they may respond in atypical ways to medications, such as Ritalin. Psychiatrists need to proceed with caution and carefully monitor individuals' reactions to medication. Medications that are properly administered and monitored may significantly improve arousal, attention, behaviour and mood regulation.
- ▷ Find professionals who can act as ongoing consultants on behavioural issues, such as therapists, counsellors or psychologists. These people should be knowledgeable about issues of FASD.
- ▷ Help access appropriate counselling and family support. Individual counselling with students is most helpful if the focus is on social skills training rather than talk and insight therapy.
- ▷ Work collaboratively with parents and other teachers to develop strategies for managing difficult behaviours and separating normal misbehaviour from behaviours related to neurological damage.



Consider how behavioural difficulties can be related to developmental level.

Samples of specific strategies

- ▷ Understand that out-of-control behaviours or shut downs are ways individuals communicate their feelings and frustration. Observe, evaluate and if possible, adapt situations.
- ▷ Consider students' developmental rather than chronological ages when planning ways to deal with emotional difficulties and lack of behavioural regulation.
- ▷ Continue to provide external structure and support for learning and daily routines that would typically be used with younger children. Teachers, job coaches and friends should all use external structuring that is developmentally appropriate to help individuals manage their emotions and behaviour.



Help students learn self-management skills by teaching strategies to deal with overstimulation and anxiety from sensory overload.

Samples of specific strategies

- ▷ Directly teach and practise ways to cope with overstimulation. Teach appropriate techniques to calm down and focus.
- ▷ Help students determine their most difficult times in the day and which situations make them feel uncomfortable. Work with them to see what they can do to avoid overstimulation.
- ▷ Teach students the names of different feelings and show them ways to control their behavioural responses. For example, provide a script to help identify feelings and steps to calm down.
- ▷ Use pictures and visuals to help students identify and communicate their feelings and the intensity of their feelings.
- ▷ Teach older students to be aware of personal signs of overstimulation. For example, when students retreat or look agitated because the room is too noisy, take them aside and discuss how they feel. Ask, "What is going on in your head, your skin, your chest and your inner organs?" Explain that such physical signs indicate they should ask for help or move to quieter locations.
- ▷ Create a respite plan so students know what to do if they become overwhelmed. For example, when the class activity level is too intense, a high school student can quietly leave the classroom to spend time with the counsellor or in the library.
- ▷ Advise older students to shop and run errands in the community in the early morning or later in the evening when there are fewer distractions from crowds. Share such ideas with the parents of younger students so they can avoid problems of stimulus overload in the community.

Adaptive behaviours and social skills

Adaptive behaviours are age-appropriate skills and abilities related to learning and demonstrating school and community rules, household routines, chores and self-care.

Social skills include understanding and expressing the social conventions necessary for effective communication, participating in positive daily social interactions, and demonstrating behaviours that lead to the development and maintenance of social relationships.

What difficulties with adaptive behaviours and social skills look like

Students experiencing difficulties with adaptive behaviours and social skills may:

- act younger than their chronological age
- have no friends their own age
- play with younger children
- have problems in gym class because they don't follow game rules
- have problems with time management
- be unable to manage their money in age-appropriate ways
- come to school dirty and unkempt
- be naïve and gullible
- say inappropriate things or act in ways that disturb others.



Provide supervision and support throughout the school day.

Samples of specific strategies

- ▷ Provide direct supervision for less-structured activities at school and in the community. These include changing classes, lunch time, recess, and getting to and from school. Have teachers or other staff members present during transition times to provide extra supervision.
- ▷ If older students have success in a structured, supervised environment, continue it. Many individuals regress when supervised social relationships, medication regimes and education programs are reduced or eliminated. If it is necessary to reduce support, reduce it slowly and practise new independent behaviours repeatedly. Continue to monitor students to determine if they are coping successfully with less support.



Prepare students for changes in routines.

Samples of specific strategies

- ▷ When changes are required, add them gradually and monitor how students are coping.

- ▷ Provide warnings of changes, such as vacations, fire drills or extra visitors. Visual supports, such as charts with movable cards, can also be used to give students information about changes.
- ▷ Develop special plans for situations in which there will be different teachers. Provide instructions for substitute teachers.
- ▷ Discuss and practise behaviours for changes in the daily routine at school, e.g., field trips.
- ▷ Teach and practise specific behaviours and routines in the settings in which they will be demonstrated. Teach and practise skills in different settings and with different people. Don't assume students will be able to generalize new skills from one situation to another without a great deal of practice and support.



Teach social skills.

Samples of specific strategies

- ▷ Provide direct instruction in social behaviour skills.⁷³
- ▷ Use a video camera to capture students in positive role-plays of social skills. Students can watch themselves demonstrating appropriate behaviour.
- ▷ Give students opportunities to help so they feel valued as members of the classroom.⁷³
- ▷ Encourage students to use positive self-talk. "I can do this. I am able to pay attention right now. I can figure this out."⁷³
- ▷ Encourage students to shake hands when greeting and saying good-bye rather than hugging or kissing. Children with FASD often have difficulty differentiating between family members and acquaintances, and strangers. Replacing hugging with handshakes lessens the potential for initiating or participating in inappropriate social behaviour.
- ▷ Teach students about personal space by using masking tape or hula hoops as visual cues of appropriate personal space.
- ▷ Establish signals, such as holding up a hand, when it is inappropriate to interrupt. Use this signal consistently, and tell students what to do instead of simply telling them to wait.
- ▷ Work with students to develop an entrance and exit routine for the day or for each class.⁷³
- ▷ Play turn-taking games. For example, pass an object around and when a student has the object, it is that student's turn.⁷³

73. Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), p. 26. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

- ☒ With older students, use role-plays to review basic friendship skills. Include role-plays that involve what to say and do in new situations, such as dating, driving or working.
- ☒ Practise verbal responses, behaviours and social scripts to help students avoid risky behaviour. For example, students could prepare for situations in which they are offered drugs or alcohol by developing simple scripts and practising them in role-plays. The student might say, “I could get sick or addicted,” or “I have an allergy to alcohol.”
- ☒ Many students with FASD have difficulty discerning fact from fantasy. Restrict entertainment that is confusing or overstimulating, such as violent television, movies or video games.
- ☒ Recognize that students with FASD can be exploited and may need consistent monitoring in controlled environments. Explain the rules and routines for these students to other adults so they can help monitor and support positive interactions.



Teach functional life skills.

Essential and Supportive Skills for Students with Developmental Disabilities (Alberta Education, 1995) provides ideas on how to assess and teach functional daily living skills.

Samples of specific strategies

- ☒ Provide instruction in social, vocational and life skills. Teach skills for succeeding in real-life situations, such as taking the bus, shopping and doing chores.
- ☒ Include a vocational component in the school program. Try to give older students supervised work experiences in a variety of settings. Make sure vocational goals are included in individualized program plans if students are in special education programs.
- ☒ Practise personal-care routines, such as brushing teeth, combing hair and dressing, starting in elementary school.
- ☒ Provide positive peer models to teach and reinforce basic adaptive and social skills in the classroom and on the playground.



Teach and practise self-advocacy skills.

Samples of specific strategies

- ☒ Develop social scripts students can use in high-stress situations, such as getting on the wrong bus or hurting themselves. Students can keep these scripts in their wallets and use the steps when necessary.
- ☒ Use tools, such as the Self-advocacy Checklist, Appendix A10, page 124, to help students identify self-advocacy behaviours. Provide opportunities to role-play self-advocacy behaviours. Try them out in the classroom and practise them in other settings.

Attention

Attention is the capacity to focus on relevant information, encode information being focused on, sustain attention and split attention between two or more tasks. The attention function involves control of processing and production, as well as regulation of mental energy and alertness.

What attention difficulties look like

Students experiencing difficulties with attention may:

- miss instructions
- respond with answers unrelated to the questions
- look attentive and focused but have trouble understanding and responding appropriately
- be easily distracted
- have difficulty inhibiting responses
- be impulsive
- be hyperactive, e.g., move around, fidget
- have problems doing two tasks simultaneously, e.g., listening and taking notes.



Provide structure to focus attention.

Samples of specific strategies

- ▷ Provide external structures, such as study carrels, earphones or desks located in a quiet part of the classroom. Reduce extraneous stimuli to help students attend to relevant materials.
- ▷ Use a bookmark, ruler or sheet of paper to cover the rest of the page when reading or reviewing directions.
- ▷ Limit materials on desks or workspaces.
- ▷ Keep instructional group size as small as possible.
- ▷ Limit the number of oral instructions given at any one time. Follow up with printed instructions that include visual cues.



Give only one task at a time to reduce problems when shifting attention.



Samples of specific strategies

- ▷ Keep tasks short and specific with one instruction at a time, such as "Read the first paragraph." After it has been read, instruct, "Now answer question one."
- ▷ Provide a list of tasks to be completed and have students check off each task as it is completed.

- Provide cues when there is a shift in activity. For example, when speaking to the class, stop and indicate information that students should write down.



Schedule times for appropriate movement.

Samples of specific strategies

- Provide stretch or movement breaks as needed or make them part of the classroom routine. Arrange an area in the classroom where students can move around without distracting others. Give students the option of going to this area when they need a stretch break.
- Have students do regular errands in the classroom, such as passing out papers or putting materials away, so they can move in the classroom in appropriate, helpful ways.
- Arrange nondistracting ways for students to move while involved in work. For example, one teacher replaced a student's seat with a large ball with a handle. The student could bounce at her desk and still get work done. Small inflatable cushions also provide students with an opportunity to move in their seats without distracting other students.⁷⁴



Manage the environment so students maintain mental energy and sustain focus.

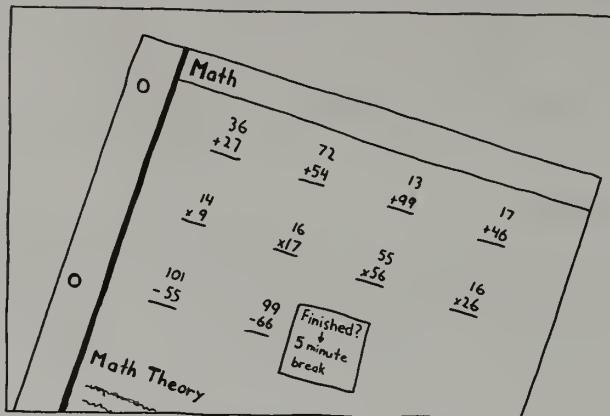
Samples of specific strategies

- Provide periodic verbal prompts or visual cues to remind students to stay on task. Set watch alarms to go off at specific intervals as a reminder to focus. Use tape-recorded messages to remind students to check their work.
- Create guidelines for developing good listening skills and review them frequently. For example, "Show me good listening skills. Heads up. Pencils down. Hands in front of you. Turn your body so you can look at me. Look and listen."⁷⁵
- Reinforce listening skills and behaviours for all students by commending students who demonstrate them.⁷⁵

74. Kleinfeld and Wescott 1993.

75. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 94.

▷ Place visual cues, such as stickers or checkmarks, at specific spots on worksheets that signal students to take a break.



▷ Use auditory cues, such as bells or egg timers, to provide cues for when to take a break or return to work.

▷ Place a time limit on homework. If elementary students are typically spending more than one hour a night on homework, this may be counterproductive and cause problems at home.



Use low-key cueing to encourage students to stay on task.⁷⁶

Samples of specific strategies⁷⁶

▷ Post reminders on students' desks. When possible, have students design and make reminder cards. Simply walk by and point to the reminder. This works for such skills as:

- asking politely for help
- focusing on work
- taking turns.



76. From Catherine Walker (Edmonton, AB: Smart Learning, 1998).

- ▷ Collaborate with individual students to identify physical cues that indicate a behaviour is interfering with learning. Cues should be unobtrusive and simple, such as a hand on the shoulder. This works for minor behaviours, such as interrupting or talking off topic.
- ▷ Allow students to listen to quiet music or a recorded voice that motivates them to keep working. Record an adult voice giving intermittent comments that support focusing attention and sustaining working.
- ▷ Laminate fluorescent file cards with key messages, such as *Talk in a low voice* or *Keep working*. If students need reminders, lay the cards on their desks, without comment. After five minutes, if behaviour has improved, quietly remove the card. If the behaviour continues, add a second card.



Encourage students to attend to instructions.⁷⁶

Samples of specific strategies⁷⁶

- ▷ Enforce a *No pencils in sight* rule during class instruction and discussion times.
- ▷ To physically slow down students and encourage them to attend to directions, fold over the worksheet so only the directions show.
- ▷ Ask students to explain directions in their own words to partners, teacher assistants or the teacher.
- ▷ Ask students to work through a few questions and then check their work. “Do the first five and then raise your hand and we’ll check them together to make sure you are on the right track.”
- ▷ When possible, hand out worksheets one at a time.
- ▷ If students are focused on quantity rather than quality, make a graph for certain tasks, such as math fact sheets and spelling tests, and record the number of correct answers (versus the number of completed answers).

Memory

Memory is the ability to register new stimuli, retain information for a short time, consolidate and use new knowledge and skills, and store information in long-term memory storage. Retrieval involves efficiently recalling stored ideas.

What memory difficulties look like

Students experiencing difficulties with memory may:

- be unable to remember colours and shapes despite repeated instruction
- be unable to recall information for tests despite extensive studying
- frequently lose their belongings
- have problems remembering daily routines despite regular exposure
- have problems recalling facts and procedures, such as number facts or steps to long division.

76. From Catherine Walker (Edmonton, AB: Smart Learning, 1998).



Use instructional techniques that support and enhance memory skills.

Samples of specific strategies⁷⁷

- ▷ Provide one instruction at a time until students can remember two consecutive instructions.
Provide two instructions at a time until students can remember three.
- ▷ When giving verbal instructions, write down the main points on an overhead or on the board.
- ▷ Provide opportunities for students to see directions and other information. For example, take time each day to note the daily schedule on the board.
- ▷ Present concepts concretely. Real-life examples add meaning and relevance that aid learning and recall. Concepts are easier to learn and retain when presented in familiar contexts or in contexts in which the skill will be used.
- ▷ Assess student learning frequently and on shorter units of work. Continue to reinforce concepts.
Use quick, short evaluations rather than formal, longer tests.
- ▷ Use language that is familiar.
- ▷ Use cues to help students recall details.



Integrate memory aids into each learning activity.

Samples of specific strategies

- ▷ Provide regularly scheduled reviews of procedures and concepts. For example, start each day reviewing previously learned skills and ideas. Then present new skills and ideas. Before students leave for home, review the new information.
- ▷ Teach students to make lists, and note dates and assignments on a calendar.
- ▷ Encourage students to make lists of reminders regularly.

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- ▷ Teach mnemonics for recall when concepts or facts are presented. An example is the math mnemonic Doctor-Sister-Mother-Brother for remembering the steps in long division.

Doctor – Divide
Sister – Subtract
Mother – Multiply
Brother – Bring down

- ▷ Teach and practise other memory strategies, such as rehearsal, clustering and associations.
- ▷ Use rhymes, limericks, songs, movement and patterns. Music and physical routines linked to fact learning can help students memorize faster and act as a cue for retrieving specific information.
- ▷ For older students, teach study skill strategies for taking notes and preparing for tests.

See *Teaching Students with Learning Disabilities* (Alberta Education, 1996), page LD.130 for ideas for teaching mnemonic techniques.

Rosella Wallace (1993) has published two books of learning raps, rhymes and songs that can be used to teach math, geography, reading, and other academic skills and concepts.



Provide multisensory cues to make information and skills easier to remember.

Samples of specific strategies

- ▷ Use multisensory instruction to teach sound-symbol associations in initial reading instruction. The procedure includes: Say the name of the letter, its sound and a word that starts with that letter while looking at a picture of the word. Trace the letter either on the desk, in the air or in a sand tray.
- ▷ Teach arithmetic facts by using concrete ways to show quantity or number, such as fingers and counting blocks.
- ▷ Provide visual cues, such as colour coding, photo and drawing sequences, charts and videos.
- ▷ Use auditory and kinesthetic cues in combination. Combine rhymes, raps and songs with movement and dance patterns.
- ▷ Build in hands-on learning experiences and demonstrations across subject areas. Students will learn and remember more effectively when they have opportunities to see and try out new information and skills in a variety of settings and contexts.

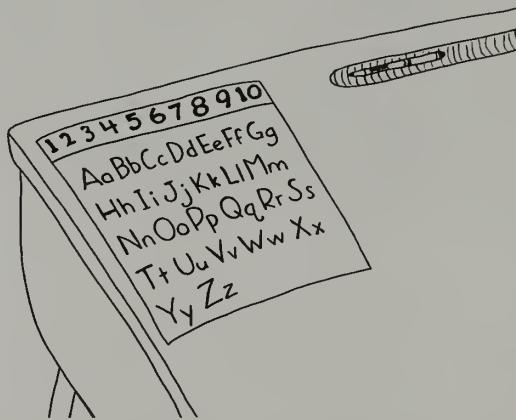


Provide clear organization to make retrieval of materials easier.

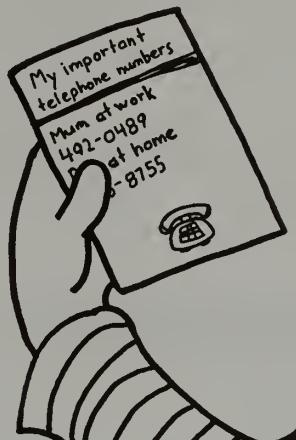
Samples of specific strategies

- ▷ Label class supplies and class work. Encourage students to use folders and binders with different colours, or labels with pictures to separate subject work or materials for each class. Ensure students have their names prominently displayed on all personal supplies.
- ▷ If students have lockers, have them put materials for each class in separate colour-coded bags or encourage them to keep their morning books on the bottom shelf and their afternoon books on the top shelf. Have students post their daily schedules and monthly calendars of assignments on the inside of locker doors.
- ▷ Assist students with daily and weekly organization of their desks, workspaces and living spaces by providing time to clean desks and organize homework at school.
- ▷ With older students, build procedures into the day for recording information in day-timers or assignment books.
- ▷ Provide strategies to avoid losing keys, clothing and books. For example, house keys can be worn on a chain or hook sewn to the inside of a pocket.
- ▷ Provide memory aids for frequently used facts. For example, a grid of math facts can be kept in a pocket on the side of desks. Letter formation strips can be laminated and pasted to the tops of desks. Schedules should be kept on the blackboard or on the wall. Students can keep personal copies in their desks or notebooks.
- ▷ Tape simple cue cards of daily class routines on students' desks.
- ▷ Tape laminated number lines, the alphabet or other specific codes and information to students' desks so they have an immediate reference to frequently needed symbols.

See Time Management, page LD.111 in *Teaching Students with Learning Disabilities* (Alberta Education, 1996).



- During functional skills training, teach students to make and use cue cards of the daily schedule, medication routines and critical telephone numbers.



Language and communication

Language is the complex, rule-governed code or set of symbols people use to communicate. Language can be divided into two main processes: 1) comprehension—also called receptive language, and 2) production—also called expressive language. Language can be spoken, written or gestural, as in American Sign Language. People use receptive language skills to follow directions, listen to other people and understand what is being said. Expressive language skills are the ways people use meaningful statements to communicate information and ideas, and respond to questions or comments.

Communication involves the use of language to exchange information between people within a social context. It also includes nonverbal communication, such as gestures, facial expressions, body movements and posture. Affect, stress and intonation also influence communication. Communication is how people express emotions, initiate and develop social relationships, and convey their needs within the daily events of life. Social communication is the ability to consider the perspective of another person within interactions and use that information to guide responses.

At elementary school age, it is important to monitor students' abilities in speech articulation, vocabulary, grammar, comprehension, expressive language and social communication. It may be necessary to refer individual students for a speech and language assessment. The language difficulties of students with FASD are sometimes not apparent until later elementary years, so ongoing assessment may be required. These students typically lack higher-level language skills despite having seemingly normal vocabulary, grammar and sentence structure skills.

What language and communication difficulties look like

Students experiencing difficulties with language and communication may:

- be chatty, but have a difficult time explaining what they have seen or heard in a logical coherent manner
- have much better expressive than receptive language abilities
- not appear to understand verbal directions
- have problems putting thoughts into written language
- be able to describe a picture or fill in a worksheet, but have much more difficulty writing a story or simple report

- have limited ability to exchange information effectively within a conversation
- interrupt frequently and make unrelated comments
- say, “Everything is going fine,” when offered assistance because they are unable to talk about specific details or explain problems.



Teach students strategies to develop their listening and comprehension skills.

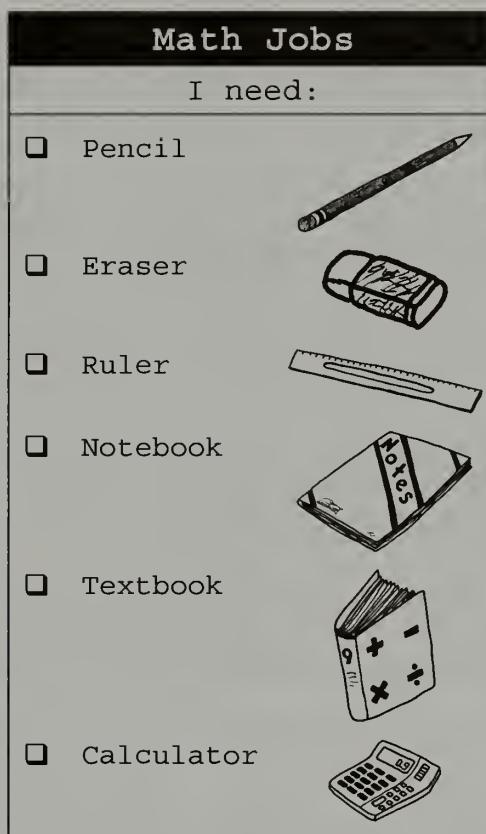
Samples of specific strategies

- ▷ Use visual cues and verbal aids, such as songs and mnemonics, to remind students what to do and in what order to perform tasks.
- ▷ Use concrete language.
- ▷ Use visual, auditory, tactile and kinesthetic instructional strategies. For example, expose students to letters with a variety of cues and in a variety of settings.⁷⁸
- ▷ Use visual models to make abstract concepts more concrete.⁷⁸
- ▷ Be aware that students with language difficulties may not understand announcements made on the public address system even though they are listening attentively. Get a print copy of all school announcements and review the information and its implications with the class.⁷⁹
- ▷ When planning for emergencies, consider how to accommodate individual students who may not understand instructions given on a loud speaker.
- ▷ Use visual cues and role-plays to teach students the five listening behaviours:
 - mouth quiet
 - hands quiet
 - ears listening to speaker
 - eyes looking at speaker
 - feet still.
- ▷ Accommodate individual students who have difficulty dealing with sensory overload by allowing them to look away, play quietly with a small toy or sit in a manner that allows movement during listening activities.
- ▷ Encourage students to watch classmates for cues about what they should be doing.

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79. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 83.

- ▷ Give instructions one step at a time and repeat information as needed. Check for understanding by asking students to repeat directions in their own words, or by checking understanding with partners.
- ▷ Provide photocopies or audiotapes of important information.
- ▷ Speak slowly and wait for understanding and student responses. Some students need time to process information before they can understand it.⁷⁹
- ▷ Use visual stimuli, such as charts, pictures and videos to develop understanding of the language of instruction.



- ▷ Adapt instructions and lectures so talk is reduced, and instructions are clear and concise.
- ▷ Give simple sequential instructions orally and print them on the board.
- ▷ Present information in a variety of ways, including visually, in writing, orally and by gestures.

79. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 83.

- ▷ Consult with a speech pathologist to see if sign language may be a helpful strategy for teaching individual students even if they do not have a hearing loss. Sign language is concrete and visible, and can be used with verbal language.⁸⁰



Provide support for social communication development.

Samples of specific strategies

- ▷ Be aware of the possible discrepancy between students' oral fluency and their actual ability to communicate concepts or needs effectively.
- ▷ Teach replacements for inappropriate language and gestures.
- ▷ Address social communication difficulties through group activities with peers. Group activities provide an opportunity to use a variety of teaching techniques, including modelling, coaching, role-playing, behavioural rehearsals and group discussions. Ultimately, move teaching and practice to the environments in which the language and communication skills will be used.
- ▷ Use scripts to teach social communication behaviours. Techniques for teaching social pragmatics are available in a number of resources and commercial programs.
- ▷ Monitor students for an increase in social difficulties, such as peer rejection and social isolation, that may be a result of difficulties in social communication. Provide social communication training through individual and group instruction in the classroom.
- ▷ Provide direct teaching of social and conversational skills, such as topic maintenance, taking turns and social distance. Use peer models whenever possible.
- ▷ Help students learn language skills by teaching them in the environment in which they will be using the skills.⁷⁸

Academic skills

As students progress through the grades, the curricular emphasis changes from learning skills, to using them to comprehend and demonstrate understanding of new information and concepts.

78. Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), pp. 37–38. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

80. Adapted with permission from Judith Kleinfeld and Siobhan Wescott (eds.), *Fantastic Antone Succeeds! Experiences in Educating Children with Fetal Alcohol Syndrome* (Fairbanks, AK: University of Alaska Press, 1993), p. 335.

What difficulties with academic skills look like

Students experiencing difficulties with academic skills may:

- be unable to learn simple one-step rules, e.g., “hang up your coat on the hook”
- have trouble learning sequences, e.g., the days of the week, the ABC song
- not understand basic math problems
- be unable to learn to tell time
- have problems answering comprehensive questions about material they appear able to read
- be unable to learn math skills beyond a basic level
- have problems writing coherent stories and reports.



Adjust academic expectations to match the skill level and developmental age of individual students.

Samples of specific strategies

- ▷ Provide inservice education to teaching and administrative staff about the issues associated with neurological impairments, and the effects of prenatal alcohol exposure on child development and learning.
- ▷ Use a variety of assessment strategies to generate comprehensive information for planning and instruction.
- ▷ Adjust instruction to the slower cognitive pace many students with FASD demonstrate.
- ▷ Present only one new concept in a lesson, if possible.
- ▷ Provide extra time to complete work and, when appropriate, reduce the workload so it can be accomplished within a reasonable time. Students should not be expected to take home all the work they are unable to finish in class plus all the regular homework.
- ▷ Vary the number of responses required to demonstrate mastery of a skill by emphasizing quality versus quantity in rote-learning tasks.
- ▷ Provide individualized instruction in areas of weakness. Use a range of approaches that are successful for teaching reading, math and written language to students with learning difficulties.
- ▷ Provide alternative course placements for areas of weakness, such as math and second languages. For example, American Sign Language may be a more appropriate alternative for students instead of French, Spanish or Japanese.
- ▷ Focus on vocational learning and teach functional life skills. Attend to safety issues, health and nutrition, leisure time skills, and job skill instruction.
- ▷ Continue to supervise and support academic development with in-school advocates and counsellors. Identify the support team at the beginning of the school year. Include plans for academic skills and social support in students’ IPPs.



Use instructional strategies that are explicit and tap various senses and learning styles.



Samples of specific strategies

- ▷ Use multisensory approaches to instruction. Use a variety of approaches to teach one concept. For example, teach time with an hourglass, digital clock and linear clock. Relate changes in daylight and darkness to times to wake, eat and sleep. Draw pictures about different times of the day.
- ▷ Use assistive technology, such as computers, language masters and tape recorders, for instruction and practice. Such technological aids allow students to work at their own pace and provide multiple repetitions of instruction and practice. Give explicit instruction on how to use these devices.
- ▷ Provide opportunities to learn in context and in real-life situations.



Teach strategies for managing learning and organizational demands.



Some students with FASD have life-long struggles with organization. However, even these students will benefit from learning and practising effective organizational strategies. Even if the students do not internalize these strategies, they will give teachers, parents and others who work with students effective structures and routines.

Samples of specific strategies

- ▷ Limit the number of items used at a time.
- ▷ Use communication books for daily communication between school and home. This may also be a way to provide instructions for and track homework assignments.



- ▷ Display simple, numbered, concise steps for completing assignments.
- ▷ Use pictures to accompany written and verbal instructions, whenever possible.
- ▷ Give students photocopies of instructions for multiple-step assignments. Number the steps or separate them into a stapled instruction booklet to further emphasize the order and steps in the process. When possible, provide a finished sample.
- ▷ Organize older students' class schedules for optimum success. For example, group classes in the same area, assign lockers close to classes, and recruit peers to help students with FASD move between classes and organize assignments.
- ▷ Teach students how to use daily planners. Provide a visual system to record and monitor what tasks need to be done, and check off completed items.
- ▷ Encourage students to set aside a clear organized workspace at home to complete homework and to set aside the same time each night to work.
- ▷ Visually delineate individual students' workspaces or personal space with tape, colour or labels.



Teach basic note-taking skills to older students.

Samples of specific strategies

- ▷ Encourage older students to include the date and a title for notes they record in their notebooks.⁸¹
- ▷ During lessons and demonstrations, write related key words on the board and ask students to record these words in their notebooks. They can create definitions for these key words using phrases or pictures.
- ▷ Set specific format guidelines for note taking, such as:
 - write one idea per line
 - skip lines between writing
 - leave wide margins (so details can be added later)
 - use one side of page only.⁸¹
- ▷ Encourage students to put question marks beside any written notes they don't understand. This reminds them to ask for clarification at the end of the lesson.⁸¹
- ▷ Provide five minutes at the end of learning activities so students can compare their notes with each other.

81. Adapted from *School Power: Study Skill Strategies for Succeeding in School (Revised and Updated Edition)* (p. 25) by Jeanne Shay Schumm, Ph.D. © 2001. Used with permission from Free Spirit Publishing Inc., Minneapolis, MN; 1-866-703-7322; www.freespirit.com. All rights reserved.

► Through class discussion and brainstorming, develop a sheet of note-taking tips, such as the following.

How to take effective notes in class⁸¹

- Write down a date and title for each lesson. (If the teacher doesn't provide a title, make one up.)
- You don't need to write down everything the teacher says, but do write down everything the teacher writes on the board as well as any questions the teacher asks.
- Underline, circle or star anything the teacher repeats or emphasizes.
- Write one idea per line and skip lines. Leave wide margins so extra ideas can be added later.
- Use one side of the page only (so you can add details later).
- Write neatly so you can read it later.
- Abbreviate common words and terms that are repeated. For example, "b/c" for because, "&" for and, "govt" for government.
- Put question marks beside any points you don't understand—they can be discussed later with the teacher.
- Listen and take notes to the end. Important summaries and ideas are often given in the last five minutes of class.
- Compare your notes with a friend. Add to your notes.

► Designate one student who is a good note taker to take notes that can be used by classmates. These notes can be photocopied and placed in a binder for students who are absent as well as for students who have difficulty taking notes because of motor or language difficulties.



Teach students strategies for reviewing and studying for tests.

In addition to teacher support, some students need substantial parental support to successfully prepare for tests. Ensure review materials, study strategies and details of when tests will be and what material will be covered are communicated clearly. At times, parents or a tutor can assist with test preparation. Make sure helpers have the information they need about test content and format.

Samples of specific strategies

► Make photocopies of important pages in textbooks. As a class activity, highlight key words. Use an overhead transparency to model how to highlight key words.

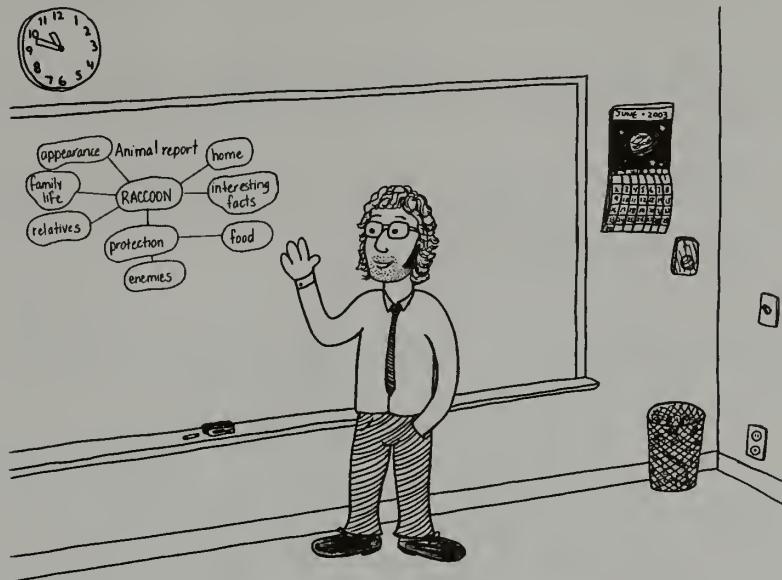
See Study and Organization Skills, pages LD.109–124 in *Teaching Students with Learning Disabilities* (Alberta Education, 1996.)

See Get Organized, Make Every Class Count and Use Tests to Show What You Know, pages 14–48 in *Make School Work for You* (Alberta Learning, 2001)

81. Adapted from *School Power: Study Skill Strategies for Succeeding in School (Revised and Updated Edition)* (p. 25) by Jeanne Shay Schumm, Ph.D. © 2001. Used with permission from Free Spirit Publishing Inc., Minneapolis, MN; 1-866-703-7322; www.freespirit.com. All rights reserved.

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- Model webs that summarize information or generate ideas on the chalkboard when discussing stories or experiences. Give students guided practice in constructing webs on specific topics that they can use to study for tests. To ensure success, have students work in pairs or triads.



- Provide class time for students to review all activity sheets in a unit. Working with partners, they can cover answers with sticky notes and try the activities again.
- Have students create fill-in-the-blank statements to review new material. They can trade statements with other students and identify the missing key words.
- Encourage students to teach new information to another person. Assign it as homework and they can teach a parent or sibling.
- Have students work in pairs or small groups to make up questions for a practice test. This strategy will help them focus on identifying key information.
- Make flashcards for special terms in science, social studies and math. Print words on one side and definitions or illustrations on the reverse. Students can use these cards to review new vocabulary, individually or in pairs.



- ▷ Give students many opportunities to practise making up questions. Choose one piece of information and challenge students to make up as many questions as they can about that specific topic. Post questions on the board and discuss how different question words, such as “how” or “why,” require different kinds of answers.
- ▷ Make up *Jeopardy!* questions and organize a fun review of a particular unit or topic. Use key words as answers and challenge students to identify related questions.



Teach test-taking skills.

Samples of specific strategies

- ▷ Through class discussion and brainstorming, generate a list of tips for taking tests, such as the following.

Be test wise⁸²

- Read all directions TWICE.
- Highlight key words.
- Pay special attention to words in bold or italics.
- Read all the important clues in charts, pictures, graphs and maps.
- When you are given information for more than one question, reread the information before answering each question.
- If there is a word that you can’t read or don’t understand, read around it and ask, “What word would make the most sense here?”
- Mark any questions you find difficult, skip them and come back to them at the end of the test.
- Often, test questions have more than one step and ask you to consider a number of pieces of information. On scrap paper, jot down notes for each step of the problem. Use this information to find your answer.
- Talk through your plan in your head. “First I have to find out … then, I take that number and … to find out … I need to …”
- Use smart guessing strategies. Do not leave any questions unanswered.
- Keep working. If you finish early, read through each question and answer to make sure you have a complete answer.



Teach students techniques for managing test anxiety.

Samples of specific strategies

- ▷ Identify what stress looks and feels like, specifically when writing tests.

82. Adapted from Alberta Learning, *Make School Work for You: A Resource for Junior and Senior High Students who Want to be More Successful Learners* (Edmonton, AB: Alberta Learning, 2001), p. 44.

- Rehearse simple steps for managing anxiety, such as:
 1. close your eyes
 2. breathe deeply and slowly
 3. relax your hands.
- Have students make a tip card outlining a strategy for handling test anxiety. Post on individual desks so students can use the strategy independently.
- If necessary, refer families to appropriate resources. At times, students may need professional counselling or medical intervention to deal with anxiety issues.



Teach binder organization skills.

Samples of specific strategies

- Investigate a number of organizational systems for binders, and choose and reinforce one that will best support individual students or group of students.
- Provide a three-hole punch, stick-on hole reinforcements, tabbed dividers and any other materials that will help students keep their binders organized.
- Initially, schedule class time daily for students to do an informal binder check to ensure assignments are filed in the right section and include necessary information. As students become more proficient at organizing their binders, checks can be done weekly or even monthly.
- Through class discussion and brainstorming, develop a tip sheet for binder organization.



Help students clarify questions about homework assignments.

For more information on binder organization, see *Teaching for Learning Success: Practical Strategies and Materials for Everyday Use* by Gloria Frender (Nashville, TN: Incentive Publications, Inc., 1994).

Samples of specific strategies⁸³

- Help students pinpoint their difficulties. “I can’t do it” or “I don’t know what to do” isn’t specific enough. Spend a few minutes encouraging students to say, “I can’t spell this word,” “I don’t know how to make this letter,” “I don’t have a pencil” or “I don’t know where to find the answer to this question.”

83. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 86.

Building Strengths, Creating Hope

- ▷ Sometimes asking students “What would help?” enables them to explain what worked in the past or what they think will help them now.
- ▷ Commend students when they are able to explain precisely what is wrong or why they cannot complete assignments.



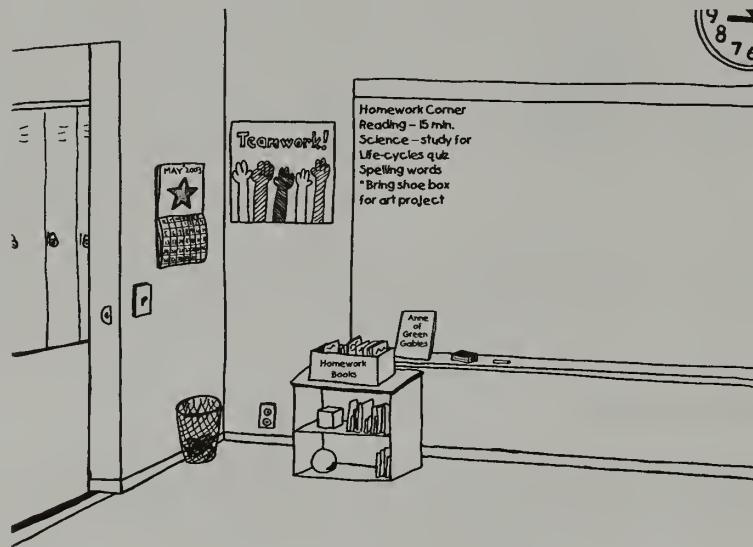
Teach techniques for organizing homework.

For many students with FASD, a successful homework program is contingent on the active involvement of parents. To ensure optimum parent participation:

- provide clear directions
- establish a routine so parents know what to look for on different days
- share strategies and tips for working with students with parents or tutors
- keep lines of communication open and be sensitive to the individual circumstances of each family.

Samples of specific strategies

- ▷ Schedule a regular time during the school day for recording homework assignments, clarifying instructions and packing books and materials.
- ▷ Designate a homework corner on the board so assignments are visible all day.



- ▷ In junior or senior high, one staff member, such as the homeroom teacher or counsellor, can serve as a homework coordinator for individual students. Students can meet briefly with their coordinators daily, to ensure they understand the day's homework and have the necessary books and materials ready to take home.

- ▷ Help students organize materials in their lockers. One mother sewed her teen separate coloured bags for the books and materials needed for each class.⁸⁴ Between classes, the student could open her locker, select the right bag and take it to class.
- ▷ Make daily or weekly assignment calendars or charts listing tasks that have to be done and when. Keep one copy at school and send the other home. Keep instructions clear and simple.
- ▷ Introduce students to checklists or assignment books with pictures of tasks and a way to indicate when work is completed. Gradually, introduce students to planning and assignment books with large squares for each day. Eventually, most students will be able to use commercially available assignment books and day organizers.
- ▷ In junior high and high school, provide daily assignment notebooks that each teacher verifies and the homeroom teacher checks. Parents can also sign homework after it is completed and reviewed at home.
- ▷ Ask a capable student to write in a class copy of a homework book each day and display this demonstration copy. It can be kept in a binder for reference. This allows individual students, teacher assistants or parents to check dated entries and see what the homework book should look like.
- ▷ Use visual timelines to develop time-management skills. Show students how to plan for projects that involve several steps over the course of several days or weeks.
- ▷ Help students learn to plan their time and organize priorities. Have them start to make their own daily homework plans. Later, have them make time-management plans for longer assignments, outlining each step.
- ▷ Develop homework checklists that students understand and can use to self-monitor.
- ▷ If students are unable to manage getting their books to and from school, provide an extra set of textbooks for home use. If technology is available, consider e-mailing copies of assignments and required textbook pages.
- ▷ Offer extra tutoring after school using volunteers, teachers or a designated school homework coach.
- ▷ Set up a homework buddy system so students can telephone or e-mail classmates if they have questions about homework assignments.

84. Kleinfeld 2000.



Use technology to enhance home-school communication about specific homework assignments.

Samples of specific strategies

- ▷ If students have difficulty remembering to bring home spelling lists or other assignment information, give them class time to phone home and record the information on their answering machines or voice mail.
- ▷ Offer to send class newsletters, test reviews and other school information via e-mail to families with Internet access.



Teach strategies for building reading comprehension and decoding skills.

Samples of specific strategies

- ▷ Pair less-able readers with competent readers and have them read and complete assignments together.⁸⁵
- ▷ Help older students locate and colour code essential information in instructions by underlining, circling or highlighting key words or steps. Teach students to use different colours to distinguish specific information while studying. For example, in a language arts assignment, students might highlight action words in green or nouns in yellow. Older students can underline or circle parts of the text in specific colours as they study. They can use one colour for new vocabulary, another for specific facts and a third for main ideas.
- ▷ Photocopy reading material and use whiteout tape to cover difficult words. Write simpler words on the whiteout tape. This is also effective in work that contains many idioms, metaphors or unfamiliar figures of speech.⁸⁵
- ▷ Consider adapting materials written for students learning English as a second language. They are written at a simpler, less complex level than other materials.⁸⁵
- ▷ Look for high interest/low vocabulary materials in the library.⁸⁵ Teach students to find books at their level.
- ▷ Provide audiotapes or audio CDs of textbooks and novels.⁸⁵
- ▷ Introduce new words slowly and repeat them frequently.⁸⁵

85. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), pp. 84, 86.

- ▷ Use picture dictionaries to aid vocabulary development.⁸⁶
- ▷ At the beginning of the school year, plan for review as students may have forgotten many sight words and decoding skills over the summer.⁸⁵
- ▷ Start with books at an easier reading level so students can build their reading confidence. “Start low. Go slow.”⁸⁵
- ▷ Consider having volunteers or buddies read with students regularly.⁸⁵
- ▷ Use flashcards to practise sight words and decoding skills.⁸⁵
- ▷ Use cut-up sentence strips to assist with word identification and comprehension.⁸⁶
- ▷ When teaching phonics, teach word families as well. Some students need to see and use words many times before they remember them.⁸⁵
- ▷ Start a home reading program. Let parents know that even five minutes a day can make a difference.⁸⁵



Help students find appropriate books for independent reading.

Samples of specific strategies⁸⁷

- ▷ Teach students how to check book cover information. Many paperback novels for young readers have a reading level printed on the cover.
 - Look for a number on one of the bottom corners of the back cover, e.g., RL 2.4. This means that in the publisher’s opinion, this book could be read independently by most students reading at a mid Grade 2 level.
 - IL refers to interest levels. It indicates the grade level that the ideas and story line would most appeal to. For example, IL 3–5 means a book might be of special interest to students in Grades 3–5.
- ▷ Encourage students to use the five finger rule to test whether a book is the right difficulty level for independent reading. Have students read the first page of the book. Whenever they come to a word they don’t know or are unsure of, they put up one finger. If all five fingers are up by the end of the page, the book is too difficult. The book might still be a good choice for paired reading or for a read-aloud. Keep a list of titles and authors of the difficult books so students can come back to them when their reading skills are stronger.

85. Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), pp. 84, 86.

86. Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), pp. 37–38. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

87. Adapted with permission from Dana Antayá-Moore and Catherine M. Walker, *Smart Learning: Strategies for Parents, Teachers and Kids* (Edmonton, AB: Smart Learning, 1996), p. 19.



Use strategies that support reluctant writers and provide alternate ways to record and communicate information and ideas.

Samples of specific strategies

- ▷ Consider alternative demonstrations of knowledge and understanding, such as videotaping, audio recording and computer applications, instead of written work.⁸⁸
- ▷ Teach and encourage the use of electronic spellcheckers, tape recorders and word processors for writing.⁸⁸
- ▷ Encourage students to write about their own experiences in order to help them organize their thoughts.⁸⁸
- ▷ Use visual structures, such as story organizers or report developers. Good examples are available in a variety of sources.



Use hands-on activities to support math learning.

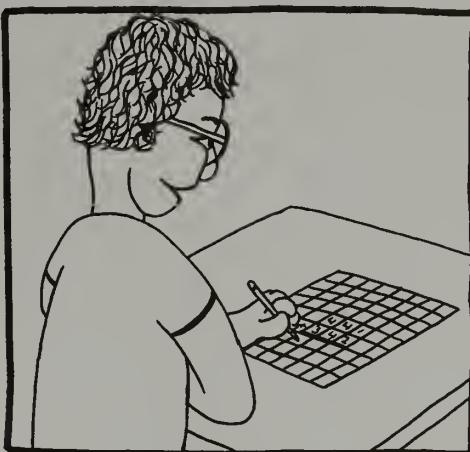
Samples of specific strategies

- ▷ Assess current math skills. Don't assume students have mastered concepts and skills taught in previous years.⁸⁹
- ▷ Locate math resources that focus on basic math skills. Move slowly when concepts are introduced, and offer lots of repetition and practice. Students need clear, concise examples and explanations.⁸⁹
- ▷ Look for different ways to teach concepts and skills, such as number lines, blocks, fingers, calculators, chanting, drill sheets, alternate texts, a slower pace, and worksheets with entertaining pictures and clear examples.⁸⁹
- ▷ Use consistent language to explain concepts or operations. When teaching operations that involve more than one step, such as subtraction with regrouping, use consistent steps and consistent language.⁸⁹
- ▷ Provide illustrated checklists for mathematical operations that have more than one step.⁸⁹

88. Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), pp. 37-38. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

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- ▷ Use graph paper or lined paper turned sideways to spatially organize mathematics problems. The lines on the page or the graph grid can be used to line up numbers in columns. This approach is especially helpful when students do subtraction and multiplication with regrouping.



- ▷ Make checklists and examples available for students to use during tests.⁸⁹
- ▷ Some students with FASD can learn the operation, e.g., addition, but have difficulty understanding the concept behind it. Teach *how* rather than *why* at first.⁸⁹ Gradually work to develop understanding through multiple presentations with manipulatives.
- ▷ Use computer programs for review. Some programs assess students' individual levels and pace instructional practice.⁸⁹
- ▷ Add value to daily math drills by having students repeat the questions and answers as you correct them together. Students see, hear, say and write the questions with the answers. This gives them more practice than if teachers do the marking.⁸⁹
- ▷ Be aware that the concept of time causes problems for many students with FASD.⁸⁹ Use physical examples of time passing, e.g., hourglass, plants growing, candle burning down.
- ▷ Some students need intensive individual support and adapted materials to successfully complete problem-solving questions. Use diagrams and start from the simplest level. Provide visual steps wherever possible.⁸⁹

89. Adapted with permission from Peggy Lasser, Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS) (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 90.

Building Strengths, Creating Hope

Appendix A

A1: Sample Questions to Discuss During Meetings with Parents	111
A2: Enhancing Parent Involvement in the Individualized Program Plan (IPP) Process	112
A3: Parent Participation in the Individualized Program Plan (IPP) Process	113
A4: Working with Parents	114
A5: Home-School Communication Book	115
A6: Environmental Scan of the Classroom	116
A7: Getting Along With Others Inventory	118
A8: Explaining FASD to Your Child	120
A9: Learning Challenges Inventory	122
A10: Self-advocacy Checklist	124

Sample Questions to Discuss During Meetings with Parents⁹⁰



The first meeting between parents and teachers is important. Prepare for the meeting and arrange the most comfortable space and time possible for all those participating. A warm welcome and invitation to work together will help establish a positive rapport between teachers and parents. Here are sample questions for structuring the meeting.

General Information

- What do you think is important for me to know about your child, e.g., specific health problems, such as seizures, vision/hearing problems, heart problems, medications?
- What educational and social goals do you have for your child?
- When other children ask about your child's differences, what do you say?

Communication and Adaptations

- Did your child attend a special needs preschool?
- Has your child received special services in school before?
- Does your child require special therapy outside of school, such as speech/language, occupational/physical, counselling?
- What are some strategies you have found useful in working with your child?

Behaviour

- What interests, activities or hobbies does your child enjoy?
- Could you tell me about your child's behaviour challenges and what this might mean in my classroom?
- What causes your child to feel overwhelmed? How does your child react when he or she is frustrated or overstimulated?

Assessment and Evaluation

- Are there any reports or other information about your child that are important for me to have, e.g., What were you told about your child's diagnosis of FASD? Does your child have any additional diagnoses, such as attention-deficit/hyperactivity disorder (ADHD)?
- Is your child able to work independently? For how long?
- In what areas has your child experienced particular success?
- What areas would you most like your child to succeed in this year?

Home and School

- Is there further information you feel I should know about the child, e.g., recent changes in the child's life, history of the child's living arrangements if adopted or in foster care?
- How can we work together to help your child learn? Are there ways we can be consistent at home and school?
- Are there any questions you would like to ask me, such as about classroom routines, activities or assessments?

90. Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), p. 72. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

Enhancing Parent Involvement in the Individualized Program Plan (IPP) Process



Teachers can encourage parents to:

- ask questions if they need clarification about the purpose of IPPs or the IPP process
- specify how, and to what degree, they wish to become involved in the development of their children's IPPs
- contact the school if they have questions about upcoming IPP meetings, e.g., the agenda, who will be attending, or if there are specific persons that they would like to attend
- write down any questions they have
- ask for clarification if anything is unclear
- ask for a copy of the goals and objectives of draft IPPs so that they can familiarize themselves before meetings
- think of their children's strengths and areas of need, and write down goals and expectations that they would like to see included in IPPs
- inform the school of general health or medical concerns that they have for their children
- provide reports and other information about their children that they feel are important
- inform the school of professionals and agencies providing service to their children
- ask for clarification of IPP goals or objectives that are unclear so all IPP team members have a common understanding
- ask how to reinforce IPP goals at home
- discuss their children's involvement in the IPP process, and how that involvement might increase each year as children mature and gain skills
- contact the school if they have concerns, and request a review of IPPs if they believe changes are necessary.

Parent Participation in the Individualized Program Plan (IPP) Process



General Tips

Parents are valuable members of the IPP team.
Make the most of your participation in the IPP process by:

- keeping in contact with the school
- taking an active role in decision making
- asking about services and resources available at school, after school and in the community
- asking to be connected to other parents in a similar situation; they can be a valuable resource.

Tips for Participating in the IPP Process

Before the meeting

- Find out what the agenda is and who will participate.
- Discuss your child's involvement in the process.
- Think about your goals and expectations for your child and write these down.
- Jot down other comments and questions.

At the meeting

- Let the teacher know how much time you have for the meeting so concerns can be addressed in that time.
- Bring samples of work your child has done at home if you think they could be useful.
- Ask questions if something is unclear.
- Discuss how you can help achieve some of these goals at home.
- Plan ways to stay in touch with the school. Let the teacher know the best way to contact you and find out the best way to contact the teacher.

Notes

Working with Parents



School staff can support parents in addressing the concerns, issues and challenges of raising and caring for children with special needs. Strategies are summarized below.

- Encourage parents to have a structured, consistent, predictable home environment. Share strategies and tips that have worked for other parents.
- Discuss the role of rules and expectations. Explain how they help create routines that increase compliance and self-management, both at home and school.
- Offer parents print and video resources that address concerns parents have identified.
- Encourage parents to maintain a consistent schedule for prescribed medications.
- Facilitate ongoing, open communication between home and school. This can be accomplished through weekly phone calls or using a communication book between home and school.
- Encourage parents to get accurate information from libraries, hotlines, community agencies or other sources.
- Encourage parents to talk to other families in the community who have children with special needs.
- Provide parents with information regarding network organizations and support groups in the community.
- Acknowledge and understand the difficult role of parents of children with special needs and support parents in this role.
- Assist parents in helping children develop appropriate social networks.

Home-School Communication Book⁹¹



Teachers and families may decide that a home-school communication system is beneficial. Use it to record relevant information that can be used to enhance instruction, manage behaviour or improve personal care of the student. Teachers and parents should determine what to include, and decide how frequently and by what means the communication book will travel back and forth. The style should be designed specifically for the individual students. The following example is adapted from an individualized communication book for a Grade 3 student.

Daily Log for Daniel

Date: _____

Comments/concerns/questions/friendly reminders from home:

Parent signature: _____

Participation in today's classroom activities

Activity	<i>Satisfactory participation</i>	<i>Partial participation</i>	<i>Did not participate</i>
Circle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Music/Art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language Arts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social/Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments/concerns/questions/friendly reminders from school:

Teacher's signature: _____

91. Reproduced from Alberta Learning, *Teaching Students with Autism Spectrum Disorders* (Edmonton, AB: Alberta Learning, 2003), p. 172.

Environmental Scan of the Classroom



Use the following questions to assess how the physical set-up of the classroom accommodates the needs of students with special needs, particularly students with attention problems.

Boot room

- Is there adequate and clearly labelled storage for students' outside clothes, backpacks and lunch bags?
- Is there adequate space so students can remove or put on outer clothes without crowding?
- Is the coat area easy to supervise and located close to the teaching area?

Student desks

- Does the desk arrangement allow all students to:
 - see the teaching area
 - participate in class discussion
 - have adequate space to work independently?
- Are there particular seating spots that accommodate students with major attention difficulties?
- Are student desks the appropriate size and in good repair?

Storage of equipment and material

- Is there a designated area for students to put their homework books at the beginning of the school day?
- Is there adequate storage for students' personal school supplies?
- Is shelving organized and clutter-free?
- Are storage areas labelled so students can find and return materials independently?
- Is there a storage area where materials and equipment can be stored out of sight?
- Are books displayed so students can see covers and are encouraged to read?

Work areas

- Are the areas in the classroom clearly defined?
- Is a private, secluded space available where students can work quietly by themselves or use as a safe place to calm down?

Physical set-up of the classroom

- Do the colours of the room create a calming, harmonious environment?
- Does the furniture arrangement allow for good traffic flow?
- Are the major traffic areas located away from the main work area?
- Do wall displays contribute to a sense of order?
- Are non-essential decorations kept to a minimum?
- Are all areas of the classroom visible to the teacher so they can be monitored and supervised throughout the school day?

Sound

- Do the acoustics allow teachers and students to clearly and easily hear one another when speaking at normal conversational volume?
- Are carpeting or chair leg protectors used to muffle the noise of moving chairs and desks?
- Are there clear classroom expectations about talking during activities?
- Is music used to cue transitions and provide a calming background to enhance students' ability to focus on specific tasks?
- Are sounds from the hallway and windows sufficiently muffled?
- Is the school-wide messaging system used at set times during the day so teachers can encourage students to focus listening?
- Is the sound quality of the intercom clear and at an appropriate volume?
- Is there minimal sound from lights and the heating system?

Lighting

- Are lights in good repair with minimal humming and flickering?
- Is the lighting adequate for a range of learning activities?

Visual cues

- Are signs and pictures at the eye level of students?
- Is an easy-to-read daily schedule clearly visible?
- Are classroom rules written in positive language and posted for easy reference?
- Are classroom supplies and equipment clearly labelled to establish ownership, and facilitate retrieval and storage?
- Are only essential visuals posted?
- Are the visual cues in the classroom student-friendly and consistent with learning?

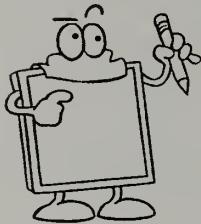
Getting Along With Others Inventory⁹²



Use inventory questions to help individual students identify and explore how they get along with others.

Name: _____

Date: _____



In class

- I come to class on time.
- I bring the books and supplies that I will need.
- I say hello to other students as I go into the classroom.
- I answer questions with a few sentences.
- When I start a conversation, I check that other people seem interested.
- I limit small talk to before and after class.
- I sit up straight.
- I take off distracting hoods and hats.
- I make eye contact with others.
- I show good listening by nodding my head and turning to the speaker.
- I volunteer at least two answers per class.
- If I've missed directions, I look to other students for clues.

always usually sometimes not yet

With partners and in small groups

- I work with a variety of partners.
- I try to make others feel comfortable by making small talk.
- I show that I want to work with others by moving closer.

92. Adapted from Alberta Learning, *Make School Work for You: A Resource for Junior and Senior High Students who Want to be More Successful Learners* (Edmonton, AB: Alberta Learning, 2001), pp. 95–96.

	always	usually	sometimes	not yet
• I am polite to people I would rather not work with.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I listen carefully to directions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I talk over directions with my partners to make sure we all understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I make a rough plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I check the deadlines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I use a quiet voice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I stay with my group and focus on the task.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I don't complain about the assignment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I do my share of the work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I volunteer ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I show good listening.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I encourage others to share their ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I don't put down other people's ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I am willing to try new roles, even if I'm uncomfortable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• I support my partners in group presentations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Getting connected

- I participate in at least one extracurricular activity each term.

Explaining FASD to Your Child⁹³


 Tips for Parents

- There is no best time or way to tell children about FASD. As parents, you know your children best. Some parents choose to tell their children early, even before the age of five. Children that young may have limited understanding of what FASD means, but telling children early can make it easier to talk about it as they grow older because the topic and words have been introduced.
- School-aged children may understand simple explanations of the condition and want to know what is different about their bodies. Children may be concerned about what caused their difficulties, and if other children have FASD or if they are the only ones. They may find it helpful to know that others have felt the way they do.
- Emphasize the positive. Point out strengths, special talents and gifts your children bring to their families and friends.
- Explain that each person learns at his or her own speed, in his or her own way—some children learn best by listening to material, and others by reading or looking at things. Emphasize that you will help learn what works best.
- Help children understand their experiences by comparing them to something familiar. For example: “Your brain is like a radio with too much noise. We have to tune in the way you learn, just like we tune in the music clearly.”
- Be cautious using medical pictures of the brain meant for adults. They can be overwhelming and confusing to children.
- Many children and teenagers with FASD are relieved to find out the cause of their problems, but may also be sad or angry. Help them talk about and deal with whatever feelings they are having.
- If you have FASD yourself, talk about this as an example of how challenges can be overcome.
- Explain that your children are not alone. Grandparents, siblings, teachers and parents are all there to listen and help with problems.
- Talk about the help your children will have—resource teachers, homework program, after-school program. Be realistic, positive and specific.
- Ask teachers for tips for coping, organization and time-management skills, such as homework books, cue cards and study notes. Use the same strategies used in the classroom. Success will increase children’s confidence in their own abilities.

93. Adapted with permission from Diane Knight, “Families of Students with Learning Disabilities,” in William N. Bender (ed.), *Professional Issues in Learning Disabilities: Practical Strategies and Relevant Research Findings* (Austin, TX: Pro-Ed, 1999), p. 277; from Robin A. LaDue, *A Practical Native American Guide for Caregivers of Children, Adolescents, and Adults with Fetal Alcohol Syndrome and Alcohol-related Conditions* (Juneau, AK: Office of FAS, Department of Health and Social Services, State of Alaska, 1999), p. 85 (this document is in the public domain) AND from Antonia Rathbun, “Talking About FAS/FAE With Children,” *About FAS/E: A Publication of the FAS/E Support Network of B.C.*, February 2001, pp. 10, 15, 16.

- Be prepared to answer the question “Will it go away?” Be honest and encouraging. For example, “Some things might change and some won’t. Your ears might always hear noises louder than mine. You might always like reading better than math. But there are lots of things we can do to make learning math easier.”
- Repeated questions about why their birth mothers drank during pregnancy may indicate children are struggling to accept that they were hurt by someone they depended on. It is less about why, and more about how sad and frustrated they feel when things are hard for them. They need honest encouragement and reassurance more than technical explanations. Answer simply, then ask what it’s like for them. Also explain that no mother intentionally tries to hurt her baby. She may have been unaware of the consequences of drinking alcohol to her unborn baby, or may have had an illness or disability herself and could not control her drinking.
- Talk about ways to handle teasing from peers. Practise responses through role-play.
- Older children may want to know what to tell friends if they ask about FASD. Children will vary in their choices about what they want others to know. Some children may want only certain people to know. As one young man with FASD said, “I want helpers to know but I don’t want kids to, because they would tease me.” Respect these choices.
- Teenagers may benefit from talking with other teens and adults who are successfully dealing with the same condition. They may feel less alone and can learn from role models. Peer support groups can provide ongoing encouragement and a chance to learn about individual differences.
- At all ages, children feel more powerful when they help create solutions for dealing with their challenges. For example, children could turn the radio on between stations to create white noise for sleeping or design posters with pictures of the items they need to pack in their backpacks each morning before leaving for school.
- Look for resources—organizations, books and videos that provide support and information. Help children use these resources and become personal advocates for their education.
- Encourage children to help plan their education programs by participating in IPP conferences and setting realistic long-term goals as they progress in school. Remind children of all the options they have for the future—high school diploma, post-secondary training, employment.
- Be willing and able, time and again, to discuss the issue.
- Give children the message that you care about them and love them as they are.
- Children and teenagers can be sensitive about their physical appearance. As part of the assessment process, they might have their eyes measured and other facial features evaluated. This may leave them feeling uncomfortable and self-conscious. They may worry that others know they have FASD just by looking at them. Emphasize they are attractive, and their friends and family members typically will not know they have FASD just by looking at them.

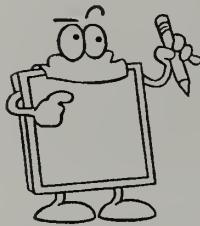
Learning Challenges Inventory⁹⁴



Use inventory questions to help individual students identify and explore specific learning challenges.

Name: _____

Date: _____



		always	usually	sometimes	not yet
1.	I come to class on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	I come to class with the materials I need, such as pencil paper and textbooks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I come to class prepared; e.g., textbook read, assignments complete.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	I can follow written directions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I can follow spoken directions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I understand the new ideas the teacher presents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I pay attention in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	I add to class discussions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I take good class notes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	My notebooks are organized and complete.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	My written work is accurate, neat and organized.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	I finish assignments on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	I know when and who to ask for help.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

94. Adapted from Alberta Learning, *Make School Work for You: A Resource for Junior and Senior High Students who Want to be More Successful Learners* (Edmonton, AB: Alberta Learning, 2001), p. 82.

	always	usually	sometimes	not yet
14. I can sit still for long periods of time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I do not distract or chat with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I stay calm and focused during tests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I do well on tests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Self-advocacy Checklist⁹⁵

Use questions to help individual students identify and build on self-advocacy skills.

- I know what FASD is.
- I attend my IPP meetings.
- I let people know what I am thinking at my IPP meetings.
- I ask for help when I need it.
- I ask questions in class.
- I have started to take on more difficult tasks in school.
- I hand in all my homework on time.
- I am proud of myself and don't let others tease me.
- My calendar, binders and notebooks are organized.
- I have learned new ways to study for tests.
- I make an effort to be a good friend to others.
- I set goals for myself.

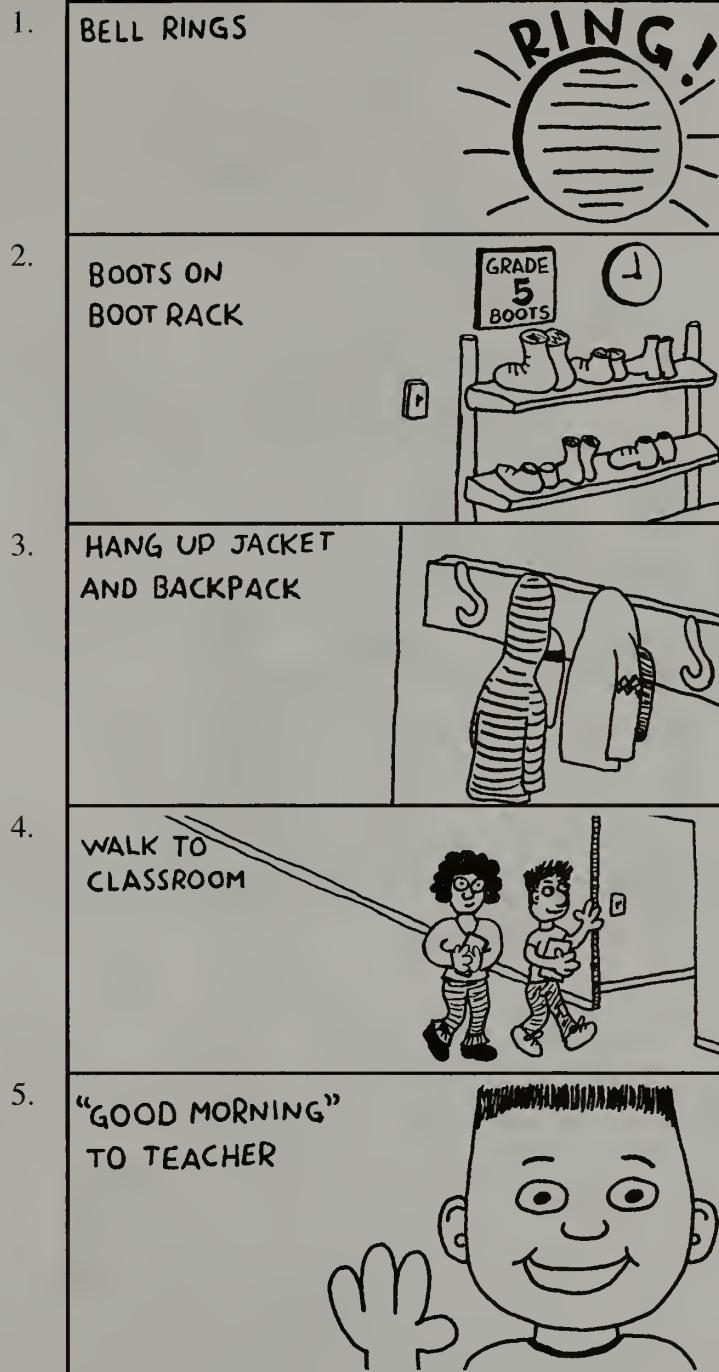
95. Adapted with permission from Howard Eaton and Leslie Coull, *Transitions to High School: Self-advocacy Handbook for Students with Learning Disabilities and/or Attention Deficit Hyperactivity Disorder* (Vancouver, BC: Eaton Coull Learning Group, Ltd., 2000), p. 57.

Appendix B

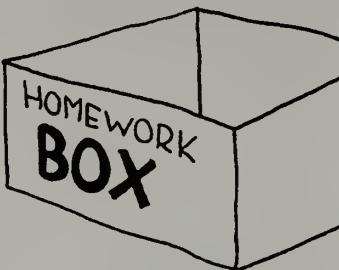
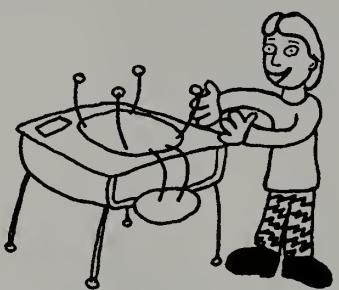
The following are sample visuals teachers can customize to use with students.

B1: Classroom Routines	125
B2: Social Script: Getting a Person's Attention	129
B3: Math Jobs	130
B4: Raise Your Hand	131
B5: Class Jobs	132
B6: Students Working	133
B7: Self-talk	135
B8: Locker	136

Classroom Routines



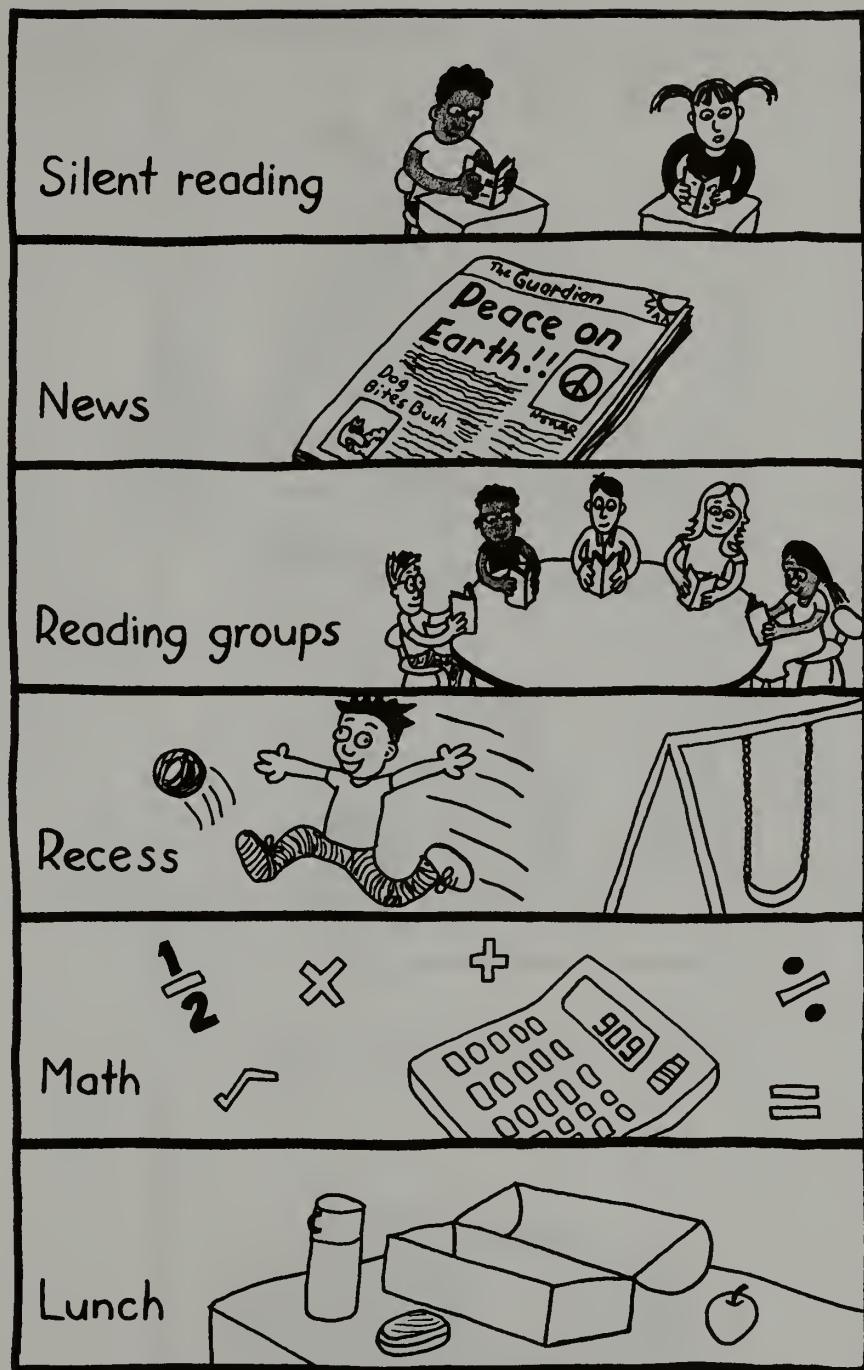
Classroom Routines (cont'd)

6. **HOMEWORK BOOK
IN BOX**

7. **TAKE DOWN
CHAIR**

8. **SIT AT
DESK**

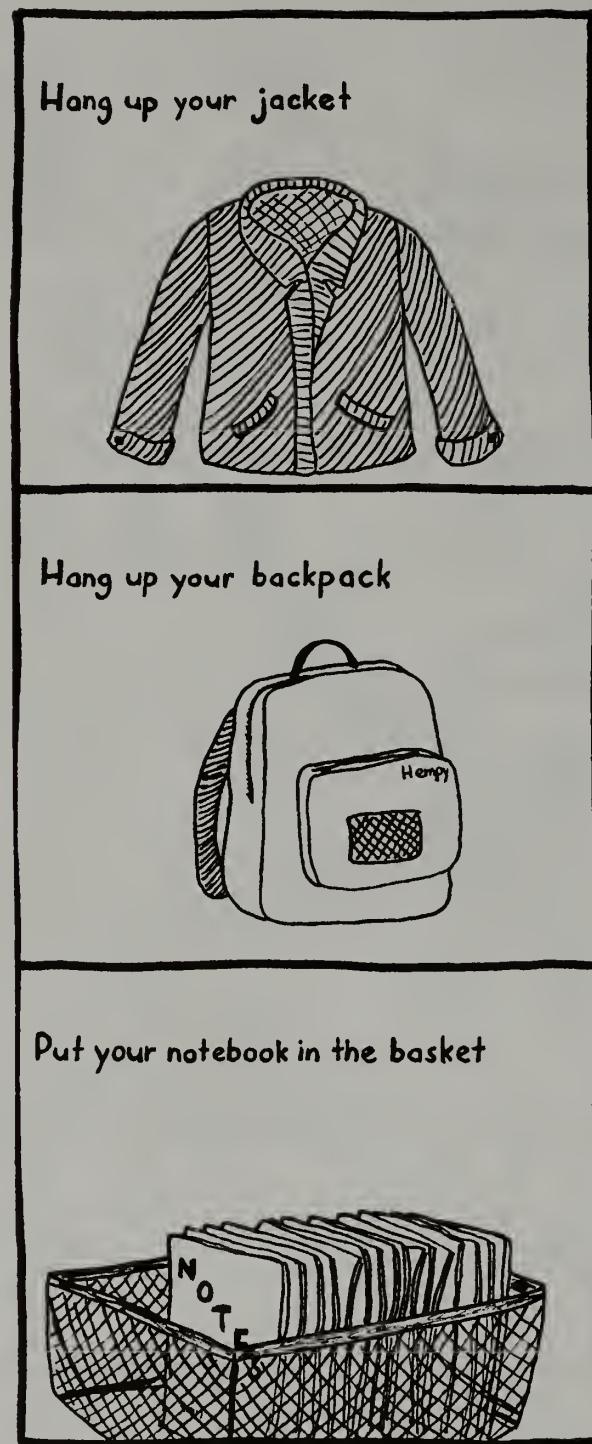
9. **TAKE OUT
READING BOOK**

10. **READ**

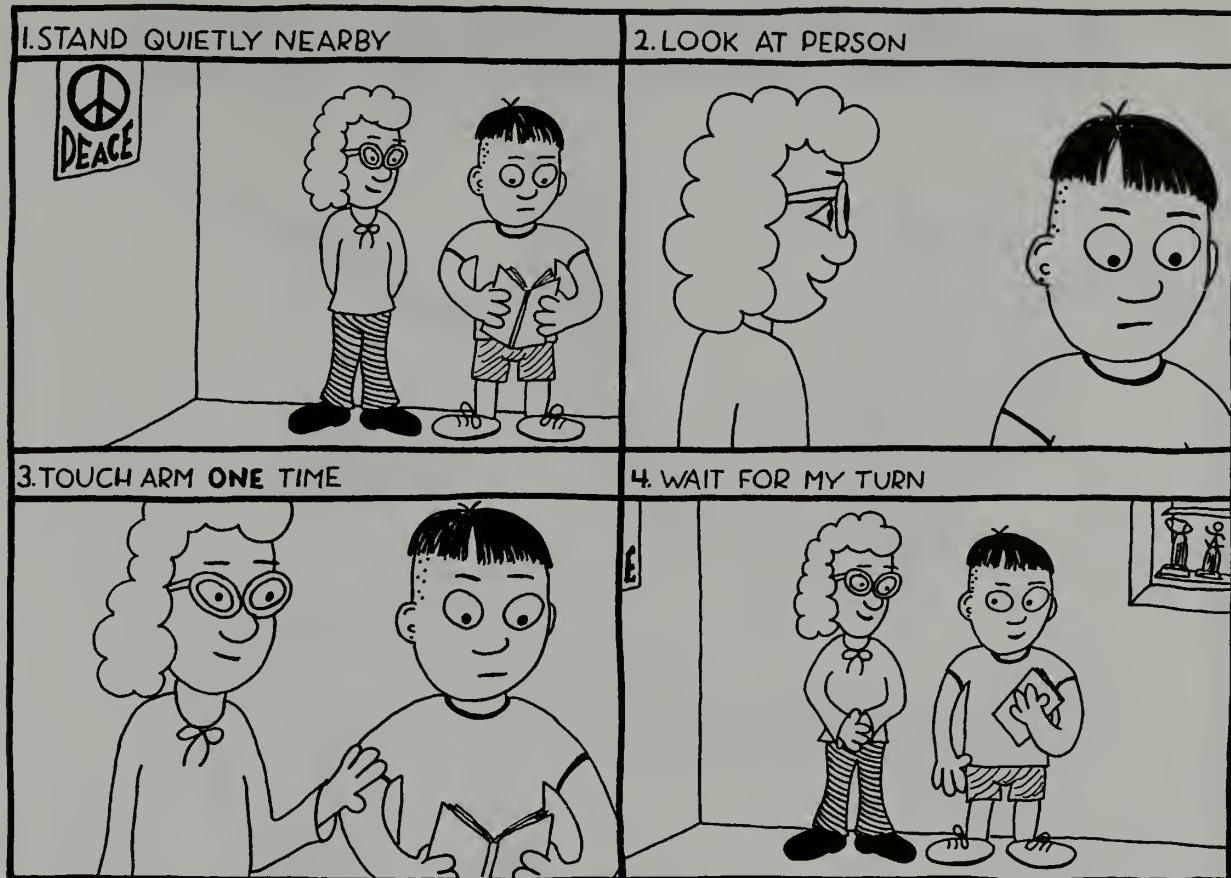

Classroom Routines (cont'd)



Classroom Routines (cont'd)



Social Script: Getting a Person's Attention



Math Jobs

Math Jobs

I need:

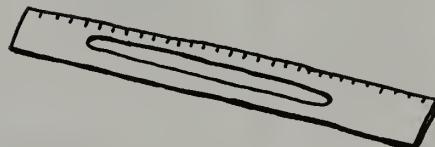
Pencil



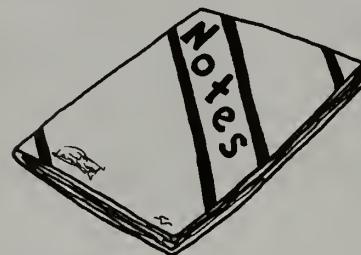
Eraser



Ruler



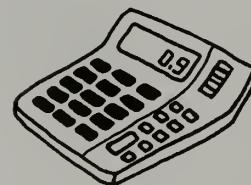
Notebook



Textbook



Calculator



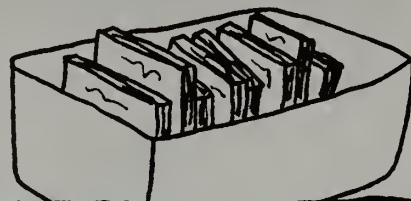
Raise Your Hand

Raise your hand

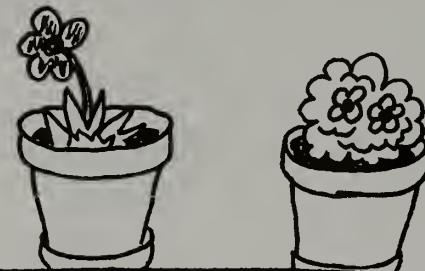


Class Jobs

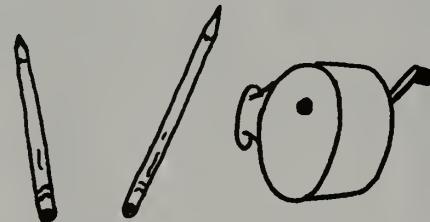
Reading baskets



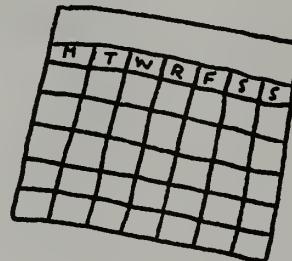
Water plants



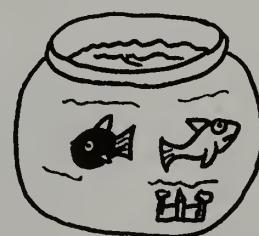
Sharpen pencils



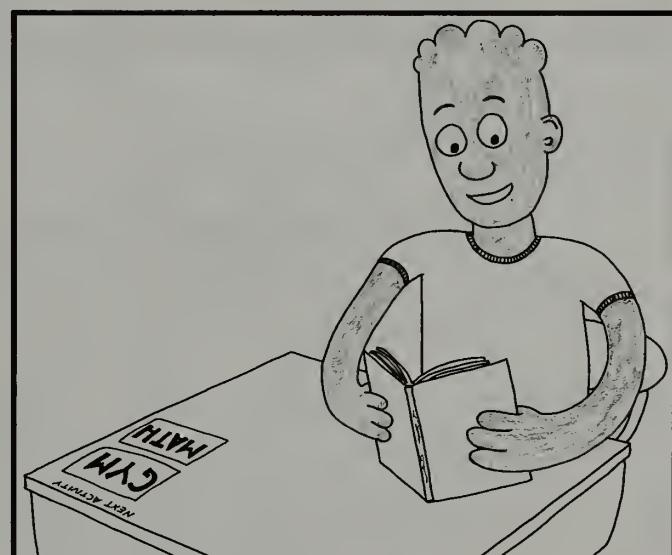
Calendar person



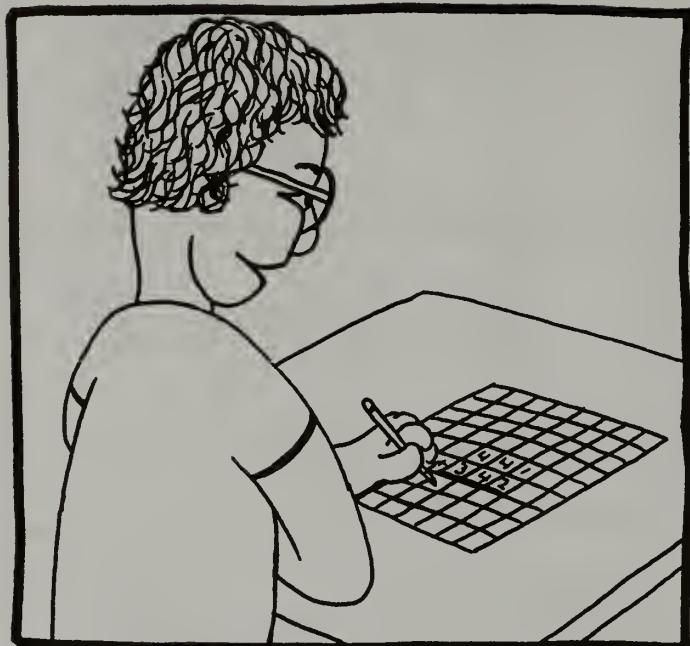
Feed fish



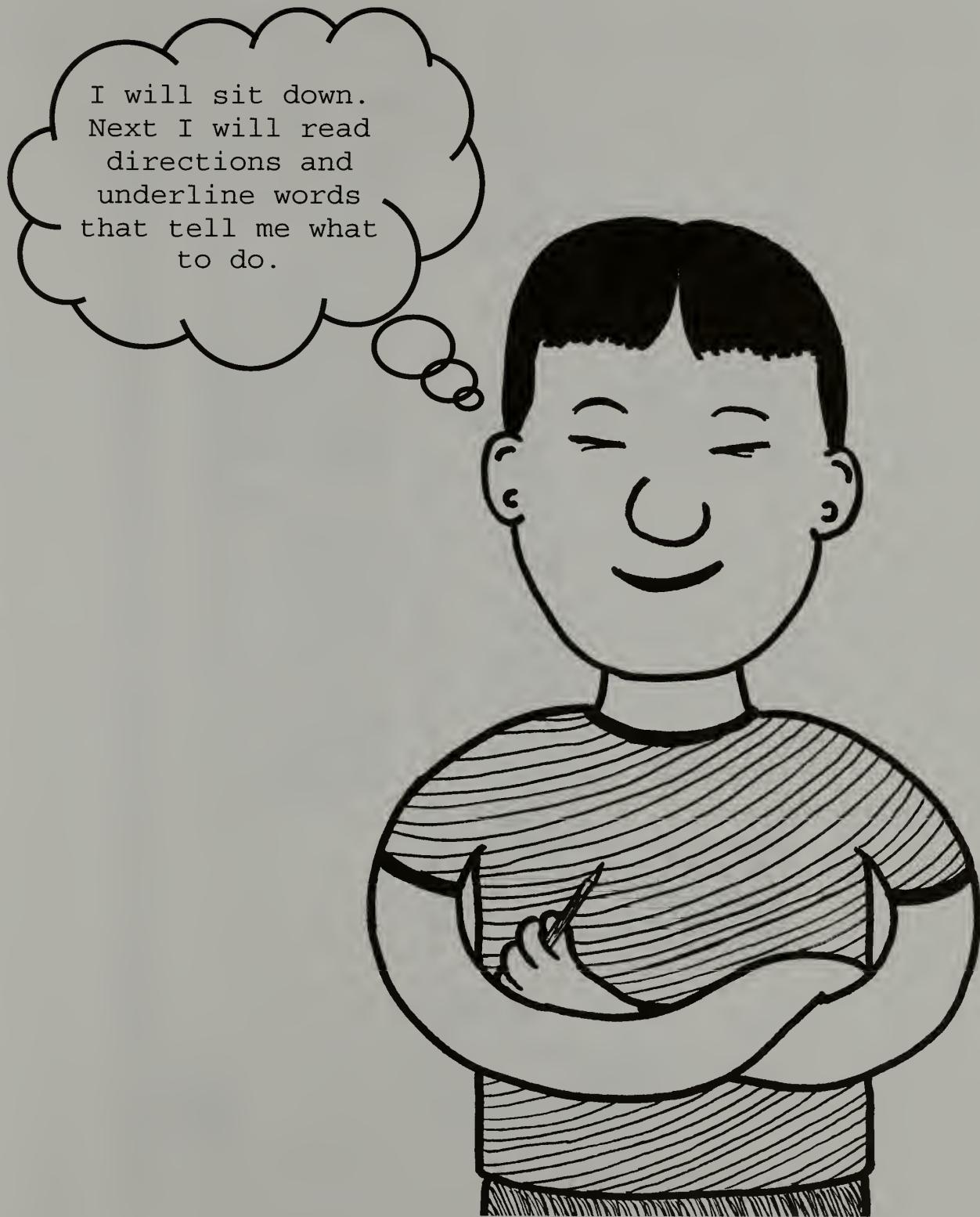
Students Working



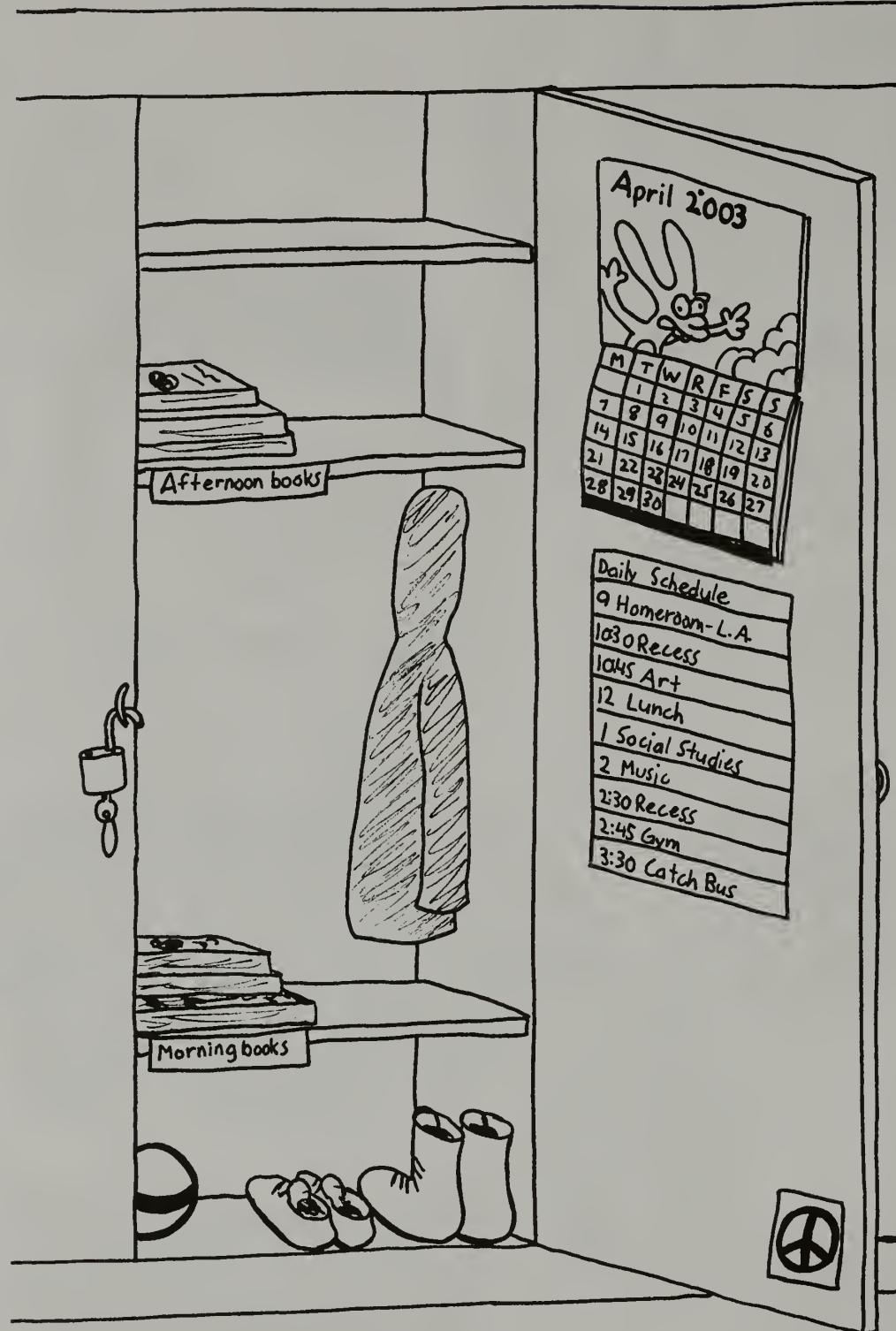
Students Working (cont'd)



Self-talk



Locker



Appendix C

The following activities provide opportunities to engage school staff in learning about this resource and FASD.

C1: Activity 1—Jigsaw: Overview of FASD	137
C2: Activity 2—Quick Tour: Overview of the Contents of the Resource	141
C3: Activity 3—Treasure Hunt: Exploring Strategies and Ideas	144

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Activity 1—Jigsaw: Overview of FASD

Purpose

To familiarize participants with defining features, terminology, characteristics and key considerations for planning effective education programs.

Briefing

The starting point to effective education programs for students with FASD is understanding of the disorder and key considerations in planning programs.

Grouping

Home group—Expert groups—Home group

Process

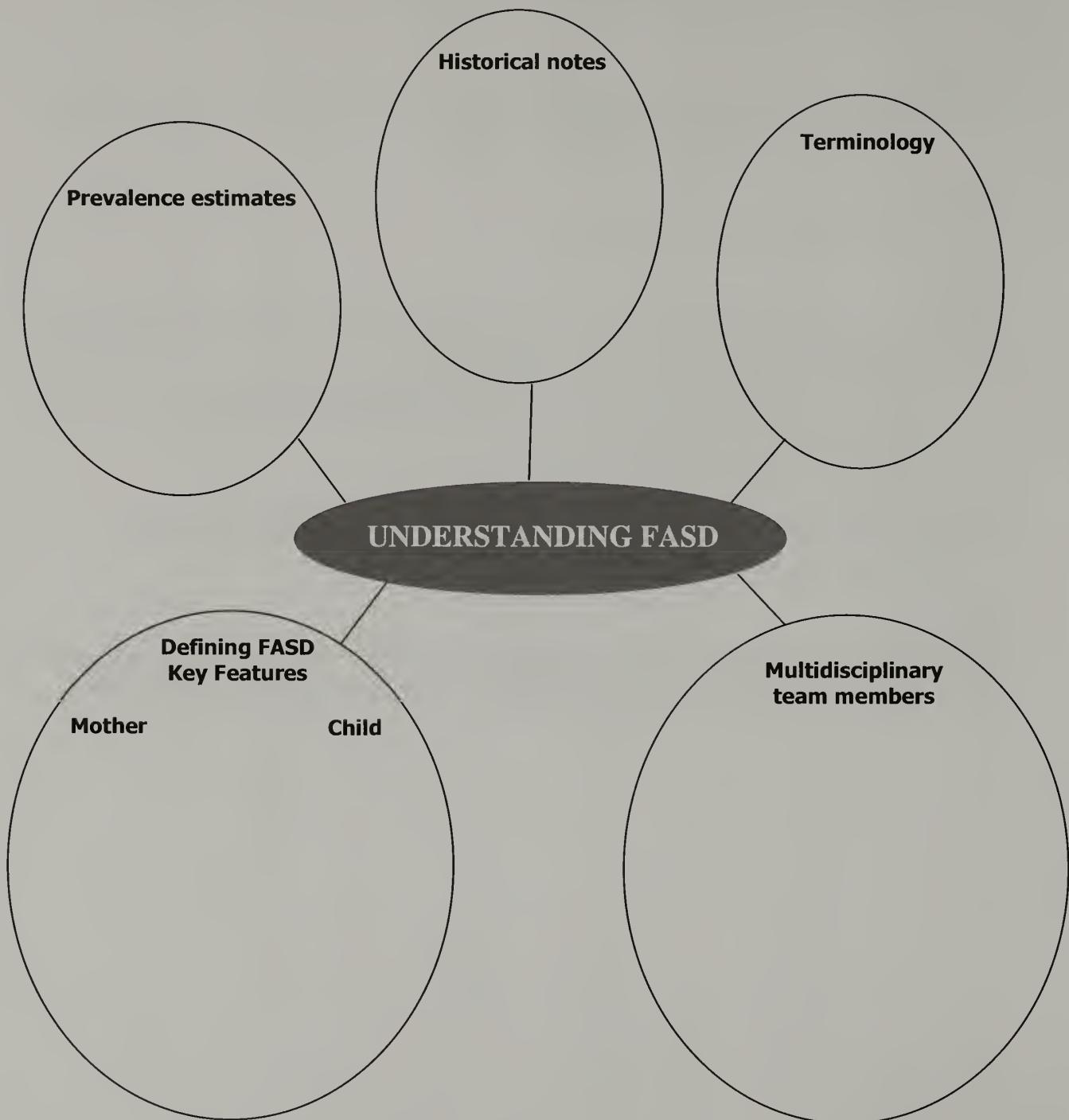
1. Form home groups with three members. Each member will become an expert in one topic that will contribute to overall understanding of FASD.
2. Members leave their home groups and join their assigned expert groups to review material. Each expert group summarizes relevant information on the related handout.
 - Expert Group A: Understanding FASD
 - Expert Group B: Primary disabilities
 - Expert Group C: Key considerations for planning effective programs
3. Experts then return to their home groups. Taking five minutes, experts relate their knowledge to the group, until everyone has shared.

Wrap-up

Stress that FASD is a medical diagnosis. Highlight the importance of collaboration, and the key role teachers play in building on the strengths of students and creating hope for their futures.

Expert Group A

Review the information in Chapter 1, pages 3–8. Complete the following semantic map outlining relevant details in each category.



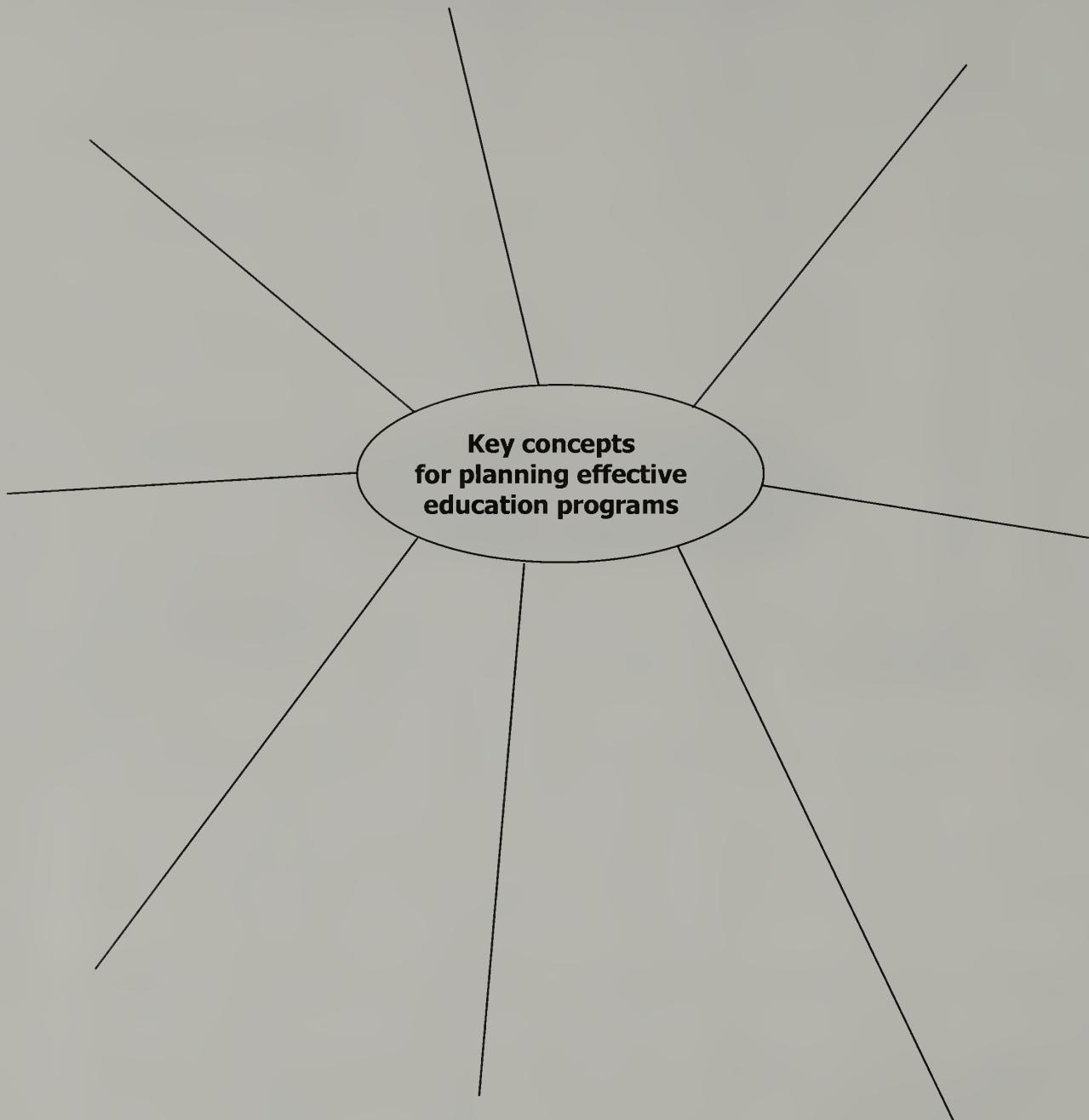
Expert Group B

Review the information in Chapter 1, pages 10–13. Complete the chart below listing the primary disabilities associated with FASD, and selecting examples of related characteristics observed during school years.

Primary disabilities	Examples during school years
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Expert Group C

Review the information provided in Chapter 2 (pages 15–26). Complete the following chart indicating a key concept on each spoke. Select two key concepts and provide an example of a best practice.



Activity 2—Quick Tour: Overview of the Contents of the Resource

Purpose

To familiarize participants with the contents of *Teaching Students with Fetal Alcohol Spectrum Disorder (FASD): Building Strengths, Creating Hope*.

Briefing

Teachers are able to plan effective education programs for students with FASD when they have knowledge about the disorder and strategies to implement in the classroom. The resource provides extensive background information to help teachers better understand the challenges faced by students with FASD. The resource offers suggestions for creating a positive classroom climate, organizing instruction and responding to students' needs in various domains.

Grouping

Participants work in pairs or small groups.

Process

1. Each participant has a copy of the Quick Tour (Activity 2). Each pair or small group completes the Quick Tour. The task requires that participants review the table of contents, skim the resource and write down the page number(s) where they can find information to answer the questions on the Quick Tour.
2. Participants share their findings with the large group. An answer key is provided to assist in giving feedback.

Wrap-up

Summarize the range of information included in the resource.

Quick Tour

Turn to the table of contents of *Teaching Students with Fetal Alcohol Spectrum Disorder (FASD): Building Strengths, Creating Hope*. Use the table of contents and skim chapters to locate information that will help answer the following questions. Write down page numbers where the relevant information is located.

1. What is the definition of FASD? _____
2. How do I address lying? _____
3. What are common characteristics among individuals with FASD at particular ages, e.g., infancy, during school years? _____
4. If I need to adjust my expectations of students with FASD from chronological age-appropriate expectations to developmental age-appropriate expectations to plan an effective education program, how do I know what to expect from a 10-year-old with FASD?

5. How can I help students with FASD move toward greater self-management of their behaviours? _____
6. What kinds of talents and strengths might individuals with FASD demonstrate? _____
7. How do I address sensory processing difficulties? _____
8. Students with FASD often have difficulty connecting cause and effect, and understanding consequences. How do I establish clear behavioural expectations in the classroom? _____
9. How can I support participation of students with FASD in whole class instruction? _____
10. How prevalent is FASD? _____
11. What intervention strategies can I use with students who have attention difficulties? _____
12. How can I help individual students examine how they get along with others? _____
13. What strategies can I use for structuring the physical learning environment for students with FASD? _____
14. What kinds of intervention strategies specifically address memory difficulties? _____
15. How can I help parents explain FASD to their children? _____

Quick Tour Answer Key

Turn to the table of contents of *Teaching Students with Fetal Alcohol Spectrum Disorder (FASD): Building Strengths, Creating Hope*. Use the table of contents and skim chapters to locate information that will help answer the following questions. Write down page numbers where the relevant information is located.

1. What is the definition of FASD? **Chapter 1, pages 3–4**
2. How do I address lying? **Chapter 4, pages 53–54**
3. What are common characteristics among individuals with FASD at particular ages, e.g., infancy, during school years? **Chapter 1, pages 10–13**
4. If I need to adjust my expectations of students with FASD from chronological age-appropriate expectations to developmental age-appropriate expectations to plan an effective education program, how do I know what to expect from a 10-year-old with FASD? **Chapter 2, page 21**
5. How can I help students with FASD move toward greater self-management of their behaviours? **Chapter 4, pages 67–69**
6. What kinds of talents and strengths might individuals with FASD demonstrate? **Chapter 1, page 14**
7. How do I address sensory processing difficulties? **Chapter 5, pages 73–77**
8. Students with FASD often have difficulty connecting cause and effect, and understanding consequences. How do I establish clear behavioural expectations in the classroom? **Chapter 4, page 59**
9. How can I support participation of students with FASD in whole class instruction? **Chapter 3, pages 33–36**
10. How prevalent is FASD? **Chapter 1, page 5**
11. What intervention strategies can I use with students who have attention difficulties? **Chapter 5, pages 86–89**
12. How can I help individual students examine how they get along with others? **Appendix A7, pages 118–119**
13. What strategies can I use for structuring the physical learning environment for students with FASD? **Chapter 3, pages 27–31**
14. What kinds of intervention strategies specifically address memory difficulties? **Chapter 5, pages 89–93**
15. How can I help parents explain FASD to their children? **Appendix A8, pages 120–121**

Activity 3—Treasure Hunt: Exploring Strategies and Ideas

Purpose

To provide an opportunity for participants to examine the resource *Teaching Students with Fetal Alcohol Spectrum Disorder (FASD): Building Strengths, Creating Hope* in more depth by responding to specific scenarios.

Briefing

The resource includes many ideas and strategies to address the complex needs of students with FASD. It is important for teachers to have an opportunity to think about practical strategies to address specific problem areas or situations.

Grouping

Pairs or small groups.

Process

1. Each participant has a copy of the Treasure Hunt (Activity 3). Pairs or small groups review the resource, and note ideas and strategies that would help address each scenario. They may also wish to note page numbers of relevant sections of the resource for future reference.
2. In a large group, pairs or small groups share their ideas. An answer key noting sections of the resource that contain information relevant to each scenario is provided.

Wrap-up

Encourage participants to think about the students in their classes and identify how the information in the resource can be used to create understanding and build programming, interventions and supports to meet the special learning needs of these students.

Treasure Hunt

Use the resource *Teaching Students with Fetal Alcohol Spectrum Disorder (FASD): Building Strengths, Creating Hope* to find strategies and ideas that could help you in the following scenarios. Jot down the ideas suggested in the resource and note page numbers.

1. You have a student with FASD who experiences significant memory difficulties, such as recalling colours and shapes, and remembering daily routines.
2. You are concerned that a student with FASD in your class has difficulty in social interactions with other students.
3. A student with FASD is experiencing difficulty with writing tasks. The work is messy with much erasing, is not on the lines, has poor spacing between letters and words, and is generally difficult to read.
4. A student with FASD frequently makes up stories to explain situations. You are concerned.

5. A student with FASD is experiencing behaviour difficulties in the lunchroom.
6. You have set a personal goal of increased participation by parents in the IPP process for a student with FASD.
7. A student with FASD is having particular difficulty in transitioning from one activity to the next during the school day.
8. A student with FASD will be leaving your class to go to a new school. You are meeting with the receiving teacher to share information. You would like to discuss the importance of correctly interpreting typical responses of students with FASD.
9. You are reviewing the physical set-up of your classroom. You would like to assess how it could better accommodate students with special needs, particularly students with attention difficulties.

Treasure Hunt Answer Key

Use the resource *Teaching Students with Fetal Alcohol Spectrum Disorder (FASD): Building Strengths, Creating Hope* to find strategies and ideas that could help you in the following scenarios. Jot down the ideas suggested in the resource and note page numbers.

1. You have a student with FASD who experiences significant memory difficulties, such as recalling colours and shapes, and remembering daily routines.
Chapter 5, pages 89–93
2. You are concerned that a student with FASD in your class has difficulty in social interactions with other students.
Chapter 3, pages 36–43 and Chapter 5, pages 83–85
3. A student with FASD is experiencing difficulty with writing tasks. The work is messy with much erasing, is not on the lines, has poor spacing between letters and words, and is generally difficult to read.
Chapter 5, pages 79–80
4. A student with FASD frequently makes up stories to explain situations. You are concerned.
Chapter 4, pages 53–54
5. A student with FASD is experiencing behaviour difficulties in the lunchroom.
Chapter 3, page 44
6. You have set a personal goal of increased participation by parents in the IPP process for a student with FASD.
Chapter 2, pages 22–23, and Appendices A2 and A3, pages 112–113
7. A student with FASD is having particular difficulty in transitioning from one activity to the next during the school day.
Chapter 4, pages 57–58
8. A student with FASD will be leaving your class to go to a new school. You are meeting with the receiving teacher to share information. You would like to discuss the importance of correctly interpreting typical responses of students with FASD.
Chapter 4, page 52
9. You are reviewing the physical set-up of your classroom. You would like to assess how it could better accommodate students with special needs, particularly students with attention difficulties.
Appendix A6, pages 116–117

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Index

A

Aboriginal parents

resources for, 25

academic skills, 96–109

age-appropriate expectations, 21, 97

difficulties for students, 11, 15–16, 96–97

reading skills, 91, 94, 106–7

study skills, 99–103

See also homework; language and communication; math skills

activity areas

uses for, 29

activity levels. *See* movement needs

adaptive behaviours. *See* life skills

ADD/ADHD. *See* attention and focus

adolescents with FASD

age-appropriate expectations (chart), 21

collaborative team involvement, 23–24

explaining FASD to, 120–21

interpreting behaviour of (charts), 16, 51–52

primary disabilities, 10–13

strengths, 14, 20–22

transition plan involvement, 46

age-appropriate expectations (chart), 21

alcohol exposure in utero. *See* FAS

American Sign Language, as supplemental strategy, 96

anxiety management, 102–3

ARBD (Alcohol-related Birth Defects), 3–4

See also FASD (Fetal Alcohol Spectrum Disorder)

ARND (Alcohol-related Neurodevelopmental Disorder), 3–4

See also FASD (Fetal Alcohol Spectrum Disorder)

assertiveness training. *See* self-advocacy skills

assessments

explaining results to students, 66

for FAS, 6–9

of learning challenges (self-assessment inventory), 122–23

of life skills, 37

of motor skills, 79

of physical environment (inventory), 28, 116–17

for program planning, 20–22

of social skills, 37, 38, 118–19

assistive technology for communication, 80, 98, 108

athletic skills as talents, 14

attention, getting a person's (sample social story), 41, 129

attention and focus, 86–89

ADD/ADHD, 12

age-appropriate expectations (chart), 21

assessment of physical environment (inventory), 28, 116–17

difficulties for students, 12, 33–34, 86

how to develop, 34–35, 86–89

interpreting behaviour (charts), 16, 52

self-assessment by students (inventory), 122–23

self-talk (sample visual), 135

students working (sample visuals), 133–34

See also movement needs

audiotapes

uses for, 54, 68, 87, 95, 98, 106

auditory cues

for attention and focus, 34, 87–89

for transitions in activities, 57

auditory stimuli

assessment checklist, 28, 116–17

difficulties for students, 27, 73–74

strategies, 28, 74–76

B

ball skills, 79

behaviour management

behavioural regulation, 12, 81–82

correction or consequences, 53, 60, 70

difficulties for students, 12, 51–53

formal behavioural plans, 69–71

interpreting behaviour (charts), 16, 52

lying and stealing, 53–55

management of environment, 55–59

student behaviour as communication, 62–63

See also positive feedback; self-management of behaviour

belongings, organizing. *See* personal belongings

binder organization skills, 92, 103

books, communication, 25, 98, 115

books, how to select, 106–7

boot room, checklist, 116

brain damage (central nervous system dysfunction) in FAS, 3, 8

breast-feeding as FAS factor, 17

bullyproofing skills, 41–42

C

calendars, 33, 90, 105

See also time concepts

caregivers. *See* parents

carrels

uses for, 28, 29, 77, 86

central nervous system (CNS) features in FAS, 3, 8
children. *See* adolescents; infants and preschoolers; students
choice, student, 66
chores. *See* life skills
chronological and developmental age-appropriate expectations (chart), 21
classrooms. *See* physical learning environment
classroom climate, 51–71
 communication strategies, 59–61
 interpreting behaviour (charts), 16, 51–52
 student behaviour as communication, 62–63
 teacher-student relationships, 61–69
 See also behaviour management; positive feedback; self-management of behaviour
classroom jobs (sample visual), 132
classroom routines. *See* routines and schedules
classroom supplies
 organization, 30, 92, 116
CNS (central nervous system) features in FAS, 3, 8
cognitive functioning in FASD, 12
collaborative teams for planning and programming, 22–24
communication books, 25, 98, 115
communication strategies. *See* language and communication
computer skills
 general uses for, 80, 98, 108, 109
 for home-school communication, 105–6
consequences. *See* behaviour management
cooperative learning, 38, 64
correction of behaviour, 53, 60, 70
 See also behaviour management
counselling approaches, 71, 81
criminal justice system partnerships, 26
curriculum matrix for generalization of learning, 47–48

D

daily living skills. *See* life skills
desks
 assessment checklist, 116–17
 uses for, 34, 77, 86
developmental levels
 age-appropriate expectations (chart), 21
 identification for program planning, 20–22
 in SCORES planning model, 48–49
diagnosis of FAS. *See* FAS (fetal alcohol syndrome)
4-Digit Diagnostic Code for FAS, 6–9
directions and instructions
 how to give oral instructions, 34–35, 60, 95
 interpreting behaviour (chart), 52
 strategies, 86–87, 89, 90, 94–96, 99

disabilities of FASD. *See* FASD
drug exposure in utero, 17

E

ear features in FAS, 7–8
early intervention and program planning, 19–20
 efforts and success, 65
e-mail. *See* computer skills
emergency plans
 communication difficulties in, 94
 for nonclassroom settings, 44
 routines in, 31
 for self-management of overstimulation, 82
 See also routines and schedules
Enhancing Parent Involvement in the Individualized Program Plan (IPP) Process, 112
Environmental Scan of the Classroom, 28, 116–17
examination skills, 100–103
executive functioning in FASD, 12
expectations, age-appropriate (chart), 21
Explaining FASD to Your Child, 120–21
exploitation of students, 85
eye contact, cultural values, 35–36, 38
eye features in FAS, 7

F

facial features in FAS, 3, 7, 9
FAE (Fetal Alcohol Effects)
 defined, 3
 prevalence, 5
 See also FASD (Fetal Alcohol Spectrum Disorder)
fantasy and fact, student concepts, 53–54, 85
FAS (Fetal Alcohol Syndrome)
 defined, FAS and FASD, 3–4
 as diagnosis of mother, 5–6
 diagnostic process with 4-digit code, 6–9
 historical background, 3, 4–5
 prevalence, 5
 teacher's role in diagnostic process, 9, 18–19
 See also FASD (Fetal Alcohol Spectrum Disorder)
FASD (Fetal Alcohol Spectrum Disorder), 3–14
 defined, FAS and FASD, 3–4
 chronological and developmental age-appropriate expectations (chart), 21
 early intervention, 19–20
 explaining FASD to children, 120–21
 family and community support, 17–18
 historical background, 3, 4–5
 interpreting behaviour (charts), 16, 51–52
 IQ and, 5, 12
 other prenatal factors, 17
 prevalence of FAS and FAE, 5

primary disabilities, 10–13
secondary disabilities, 13
strengths of FASD individuals, 14, 20–22
teacher's role in FAS diagnosis, 9, 18–19
See also FAS (fetal alcohol syndrome)

fiction and nonfiction, student concepts, 53–54

fidgeting. *See* movement needs

fine motor skills, 78–81

fire drills, 76, 84

First Nations parents, resources for, 25

flashcards
uses for, 101, 107

focus. *See* attention and focus

foster parents. *See* parents

Fragile X syndrome, 8

functional life skills. *See* life skills

G

games

in physical education, 78–79
for social skills, 84

generalization of learning

curriculum matrix, 47–48
difficulties for students, 46, 53, 55
in role-playing, 39
strategies, 47–48, 84

Getting a Person's Attention (social script)

Getting Along with Others Inventory

See also social skills

gross motor skills

78–79
difficulties for students, 33–34
self-assessment inventory, 118–19
whole class strategies, 34–36

growth deficiency in FAS

guided observations

H

hallways. *See* nonclassroom settings; routines and schedules

handwriting

78–80

headphones

uses for, 75, 86

health education

42–43

history of FAS and FASD

home and school relationships

See parents

Home-School Communication Book

homework

communication books, 25, 98, 115
interpreting behaviour (chart), 52

strategies, 88, 103–6

household routines

See life skills; routines and schedules

hypersensitivity (oversensitive)

74
See also sensory processing

hyposensitivity (undersensitive)

74
See also sensory processing

I

in-service training

FASD overview (Jigsaw), 137–40
resource overview (Quick Tour), 141–43
strategies and ideas (Treasure Hunt), 144–47

inattention

See attention and focus

individualized program plan (IPP)

See IPP (individualized program plan)
infants and preschoolers with FASD, 10, 19
instructional strategies
age-appropriate expectations (chart), 21
in SCORES planning model, 48–49
See also academic skills; generalization of learning; language and communication; organizing for instruction; resources for teachers; routines and schedules; visual cues and supports

instructions and directions

See directions and instructions

interpreting behaviour (chart)

52
IPP (individualized program plan)
collaborative teams for, 23–24
generalization of learning and IPP goals, 47
parent involvement, 22–23, 112–13
in SCORES planning model, 48–49
transitions to new programs in, 46

IQ research in FAS and FASD

5, 12

J

jaws (facial features) in FAS

7–8
Jigsaw (in-service training), 137–40
jobs, classroom (sample visual), 132
judicial system, partnerships, 26

K

keyboarding skills

80
kinesthetic strategies. *See* movement needs

L

language and communication

93–96
age-appropriate expectations (chart), 21
concrete and abstract words, 59–60
difficulties for students, 11, 13, 59, 60, 93–94, 97
general strategies, 94–96
interpreting behaviour (charts), 16, 52
nonverbal strategies, 60
reading strategies, 91, 106–7
in SCORES planning model, 48–49
strengths of students, 14
student behaviour as communication, 62–63
See also visual cues and supports

lateness. *See* time concepts
law enforcement partnerships, 26
Learning Challenges Inventory, 122–23
learning styles, 98
library books for students, 106, 107
life skills, 36–43
 defined, adaptive behaviours, 83
 age-appropriate expectations (chart), 21
 assessment of, 37
 bullyproofing skills, 41–42
 difficulties for students, 12, 36–37, 53–55, 78, 83
 fine motor skills, 81, 85
 general strategies, 37–38, 85, 93
 health and sexuality, 42–43
 interpreting behaviour (charts), 16, 52
 lying and stealing difficulties, 53–55
 personal belongings, organizing, 93
 resources for teachers, 36, 40, 85
 role-playing, 39–40
 self-advocacy, 23–24, 85, 124
 self-care, 85
 social stories, 40–41, 45, 129
 vocational skills, 85
 See also nonclassroom settings
lights. *See* visual stimuli
Likert scale for FAS diagnosis, 6–9
lip features in FAS, 7
listening skills
 difficulties for students, 35
 strategies for, 35–36, 87–88, 94–96
lockers
 uses for, 30–31, 92, 105, 136
lunch hour social skills, 44
 See also nonclassroom settings
lying
 difficulties for students, 53–54, 85
 interpreting behaviour (charts), 16, 52
 strategies, 54, 85

M

management of behaviour. *See* behaviour management; self-management of behaviour
math skills
 difficulties for students, 97
 strategies, 91, 92, 95, 108–9
 supplies (sample visual), 130
matrix of curriculum for generalization of learning, 47–48
media skills, 42, 85
medical diagnosis of FAS. *See* FAS
medication as FASD treatment, 12, 81
memory, 89–93
 difficulties for students, 11, 13, 89
 interpreting behaviour (charts), 16, 52
 strategies, 90–93
 strengths of FASD students, 14

mental retardation and FAS, 5
misinterpretations of behaviour (chart), 51–52
mnemonics, 91
mothers of FASD children
 FAS as diagnosis of mother, 5–6
 See also parents
motor skills, 10, 78–81
movement needs
 difficulties for students, 73–74
 interpreting behaviour (charts), 16, 52
 listening skills and, 35–36
 strategies, 56–57, 76–77, 87, 91, 94
multidisciplinary support teams, 18, 19
multisensory strategies, 91, 94, 98–99
music
 uses for, 76, 91

N

neurobehavioural disorder in FAS, 9
neurological dysfunction in FAS, 8, 15–16
noise. *See* auditory stimuli
nonclassroom settings, 43–46
 difficulties for students, 43, 56, 83
 errands in community, 82
 generalization of skills, 47–48
 hallways, 76
 lunch hour, 44
 playgrounds and recess, 43–44, 77
 school bus, 45, 46
 self-advocacy skills, 85
nonverbal communication. *See* auditory cues; visual cues and supports
noon hour social skills, 44
 See also nonclassroom settings
note-taking skills, 99–100

O

occurrence rate of FAS and FAE, 5
oral instruction. *See* directions and instructions
oral need for stimuli, 76
 See also sensory processing
organizing for instruction, 27–49
 generalization of learning, 46–48
 learning environments, 27–31
 in SCORES planning model, 48–49
 social and life skills, 36–43
 whole class instruction, 33–36
 See also routines and schedules
oversensitive students, 74
 See also sensory processing
overstimulation. *See* sensory processing
ownership concepts
 difficulties for students, 13, 54–55

P

pain tolerance, 74

See also sensory processing

palpebral fissure (eye slit) features in FAS, 7

Paradigm Shifts and FASD, interpreting behaviour (chart), 16

Parent Participation in the IPP Process, 113

parents

behavioural plans for students, 69–71

on collaborative teams, 22–24

communication books, 25, 98, 115

explaining FASD to children, 120–21

generalization of student learning, 47–48

interpreting child's behaviour (charts), 16, 52

IPP involvement, 23–24, 112–13

mothers in FAS diagnosis, 5–6

parent-teacher meetings, questions for, 111

strategies for life skills, 81

support for parents, 17–20, 24–26, 114

See also behaviour management; homework; resources for parents and community workers

personal belongings

classroom routines (sample visuals), 125, 128

lockers, 30–31, 92, 105, 136

ownership concepts, 13, 54–55

strategies, 29–30, 92

personal care. *See* life skills

personal spaces and boundaries

difficulties for students, 55, 84

how to define, 77, 84

personality strengths, 14

PFAS (Partial Fetal Alcohol Syndrome)

defined, 3–4

See also FASD (Fetal Alcohol Spectrum Disorder)

philtrum (upper lip) features in FAS, 7

physical cues for attention and focus, 34, 35, 89

physical education, 78–79

physical learning environment

assessment inventory, 28, 116–17

difficulties for students, 27

personal space and boundaries, 55, 77, 84

strategies, 28–31

planning. *See* organizing for instruction; program planning, key concepts

playground social skills, 43–44, 77

See also nonclassroom settings

police services, partnerships, 26

positive feedback

choices and, 66

strategies, 63–64, 70–71

student need for, 60

success and, 64–65

teacher-student relationships, 61–62

See also entries beginning with self

preschool children with FASD, 10, 19

pretend play, 54

pretending, student concepts, 53–54

prevalence of FAS and FAE, 5

primary disabilities of FASD, 10–13

program planning, key concepts, 15–26

age-appropriate expectations (chart), 21

collaborative teams, 22–24

coordination of services, 26

early intervention and support, 19–20

home-school partnerships, 24–26

identification of strengths and needs, 20–22

interpreting behaviour (charts), 16, 52

IPPs, 23–24

medical diagnosis, 18–19

prenatal and postnatal factors, 17–18

variability in neurological impairments, 15–16

prosocial skills, resources, 40

See also social skills

psychiatric medications, 81

psychometrical assessments of FAS, 8

Q

Quick Tour (in-service training), 141–43

R

reading strategies, 91, 106–7

See also language and communication

reality and fantasy, student concepts, 54, 85

recess social skills, 43–44, 77

See also nonclassroom settings

resources for parents and community workers

on daily living skills, 85

on FASD for police and judicial system workers, 26

on parenting, 25

on special needs children, 25

resources for teachers

on binder organization skills, 103

on instructional strategies, 27

on IPPs, 24

on life skills, 85

on social and adaptive skills, 36, 40

on study and organizational skills, 100

on time management instruction, 92

role-playing

about, 39–40

for self-management, 67, 68

for social skills, 42, 85

in teaching rules, 59–60

routines and schedules

checklists, 32, 58, 86

checklists (sample visuals), 125–28, 131–32, 136

difficulties for students, 31

managing changes in, 33, 83–84

self-assessment by students (inventory), 122–23
strategies, 31–32, 41, 56, 75–76, 92, 99
See also time concepts

rules
in SCORES planning model, 48–49
strategies, 59–60, 64

S

Sample Questions to Discuss During Meetings with Parents, 111

schedules. *See* routines and schedules

school administrators
on collaborative teams, 23–24

school bus social skills, 45
See also nonclassroom settings

SCORES model for program planning, 48–49

seat selection for students, 77

secondary disabilities of FASD
overview, 13
prevention of, 18–19

Self-advocacy Checklist, 124

self-advocacy skills
checklist, 124
in collaborative teams, 23–24
strategies, 85

self-care, 85
See also life skills

self-confidence and self-worth
in SCORES planning model, 48–49
strategies for building, 63–66, 84–85

self-management of behaviour
difficulties for students, 12, 53, 67, 81
self-assessment tools, 67, 68, 122–23
self-management strategies, 67–69, 82
student behaviour as communication, 62–63
See also behaviour management

self-talk
for classroom routines, 32
for self-confidence, 64, 65, 84
for self-management, 68
for social skills, 84
working in class (sample visual), 135

sensitivity of students, 74
See also sensory processing

sensory processing, 73–77
assessment of classroom environment, 28, 116–17
difficulties for students, 10, 12, 27, 34, 60, 73–74, 82
interpreting behaviour (charts), 16, 52
listening skills and, 35–36
self-management of overstimulation, 82
strategies, 28, 56, 74–77

sentinel birth defects in FAS, 9

sexual abuse signs, 43

sexuality education, 42–43

sign language as supplemental strategy, 96

smoking during pregnancy, 17

social skills, 36–43, 83–85
defined, 83
age-appropriate expectations (chart), 21
assessment of, 37, 38, 118–19
bullyproofing skills, 41–42
classroom jobs (sample visual), 132
communication development, 96
difficulties for students, 12, 13, 36–37, 83
general strategies to improve, 84–85
health and sexuality education, 42–43
interpreting behaviour (charts), 16, 52
lying and stealing difficulties, 53–55
raising your hand (sample visual), 131
resources for teachers, 36, 40
role-playing, 39–40
in SCORES planning model, 48–49
social stories, 40–41, 129
strengths of FASD individuals, 14
students working (sample visual), 133–34
supportive environment for developing, 38
transitions to new programs, 46
See also life skills; nonclassroom settings

social stories, 40–41, 45, 129

sound. *See* auditory stimuli

special needs resources. *See* resources

static encephalopathy in FAS, 9

stealing
interpreting behaviour (chart), 52
ownership concepts, 13, 54–55
strategies for managing, 55

story telling by students
fact/fantasy concepts, 14, 54, 85

strengths. *See* talents and strengths of students

student support teams, 22–24

students
age-appropriate expectations (chart), 21
collaborative team involvement, 23–24
explaining assessment results to, 66
explaining FASD to, 120–21
interpreting behaviour of (charts), 16, 51–52
primary disabilities, 10–13
strengths, 14, 20–22
students working (sample visual), 133–34
transition plans involvement, 46
See also entries beginning with self; teacher-student relationships

study carrels
uses for, 28, 29, 77, 86

study skills, 99–103

supplies, classroom. *See* classroom supplies

T

tables

uses for, 29, 56

tactile stimuli

difficulties for students, 73–74
strategies, 74–76

talents and strengths of students

encouragement of, 38, 46, 61, 64, 66
identification of, 14, 20–22, 66
in transition plans, 46

talk therapy, 71, 81

teacher education on FASD. *See* in-service training

teacher-student relationships, 61–69

building positive relationships, 61–63
building self-confidence, 63–66
student behaviour as communication, 62–63

See also positive feedback

teachers. *See* in-service training; resources for teachers; teacher-student relationships

teams

for behaviour modification, 69–71
multidisciplinary support teams, 18, 19
for planning and programming, 22–24

tests

support for students, 109
test-taking skills, 100–103

therapy and counselling, 71, 81

time concepts

calendars, 33, 90, 105
difficulties for students, 32–33
interpreting behaviour (chart), 52
strategies, 32–33, 58, 61, 98, 109

See also routines and schedules

time-management skills, 33, 92, 105

tobacco use during pregnancy, 17

transference of learning. *See* generalization of learning

transitions and changes

difficulties for students, 57, 73–74, 81
managing changes in activities, 34, 57–58, 76
managing changes in routines, 33, 76, 83–84
managing transitions to new programs, 19–20, 46

Treasure Hunt (in-service training), 144–47

truth and falsehood, student concepts, 53–54

typing skills, 80

U

undersensitive students, 74

See also sensory processing

upper lip features in FAS, 7

V

videotapes of students

uses for, 40, 46, 69, 84

visual cues and supports

in assessment results explanations, 66
for attention and focus, 34, 35, 88–89
classroom routines, 32, 61, 68, 75, 84, 92, 99, 125–28
as instructional support, 35, 92, 95, 109
for memory aids, 91
nonclassroom routines, 45
organization of personal belongings, 29–30
personal space, 77, 84
self-management, 69, 82
strengths of students, 14
time concepts, 33
for transitions in activities, 57–58, 84

visual stimuli

assessment checklist, 28, 116–17
difficulties for students, 27, 73–74
strategies, 28, 74–76

vocational skills, 85

See also life skills

W

webs as instructional strategy, 101

whole class instruction

assessment of social skills, 38, 118–19
strategies, 33–36
See also directions and instructions

William's syndrome, 8

words

uses of concrete and abstract, 59–60

Working with Parents, 114

workspaces

assessment of, 116–17
organization of, 29–30
strategies for organizing, 77

writing skills, 108

See also handwriting

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Teaching Students with Fetal Alcohol Spectrum Disorder: Building Strengths, Creating Hope

10

This guide includes information about:

What FASD is

Key concepts for planning effective education programs

Organizing for instruction

Creating a positive classroom climate

Responding to students' needs

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